



AIR REGULATIONS

1938

OTTAWA
J. O. PATENAUME, I.S.O.
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1938

TABLE OF CONTENTS

	PAGE
The Department of Transport Act, 1936—	4
Aeronautics Act—	5
Air Regulations, 1938.	
PART I. Short title and interpretation.....	9
PART II. Section I. Registration and marking.....	12
" II. Location of marks on aircraft.....	14
" III. Measurements of nationality and registration marks.....	15
" IV. Measurement, type of letters, etc.....	16
" V. Maintenance.....	16
PART III. Airports.....	16
PART IV. Personnel.....	18
PART V. Rules as to lights and signals, Rules for air traffic.....	19
Section I. Lights and visual signals to be displayed by aircraft.....	20
" II. Ground markings and signalling.....	21
A. General.....	24
B. Ground markings.....	25
C. Distress, urgency and safety signals.....	30
D. Other signals to or from aircraft.....	33
" III. General rules for air traffic.....	36
" IV. Special rules for air traffic, on and in the vicinity of all aerodromes.....	38
" V. Special rules for air traffic on and in the vicinity of aerodromes open to public use.....	39
A. General.....	39
B. Flight over or in the vicinity of the landing area.....	39
C. Rules to be observed for departures and landings.....	40
D. Rules to be observed for manoeuvres on the ground.....	41
" VI. Rules relating to aircraft on the surface of the water.....	42
" VII. Miscellaneous Provisions.....	42
PART VI. Dangerous flying.....	43
PART VII. Scheduled air transport service.....	44
PART VIII. General provisions.....	44
Appendices.	
(1) Arrangement between Canada and the United States of America relating to air navigation.....	52
(2) Arrangement between Canada and the United States of America relating to the issuance of certificates of competency or licences for the piloting of civil aircraft.....	58
(3) Arrangement between Canada and the United States of America relating to certificates of airworthiness for export.....	60
Forms.	
Memorandum respecting—.....	62
Applications for:—	
Registration of an Aircraft.....	63
Certificate of Airworthiness for Export.....	65
Private Air Pilot's Certificate.....	69
Limited Commercial Air Pilot's Certificate.....	72
Public Transport Pilot's Certificate.....	75
Air Engineer's Certificate.....	78
Airport Licence.....	80
Airport Traffic Control Officer's Certificate.....	86

THE DEPARTMENT OF TRANSPORT ACT, 1936

“5. The control and supervision of the Civil Aviation Branch of the Department of National Defence is hereby transferred from the Minister of National Defence to the Minister of Transport, and the said Branch is hereby transferred from the Department of National Defence to the Department of Transport.”



CHAPTER 3

An Act to authorize the control of Aeronautics.

SHORT TITLE

1. This Act may be cited as the Aeronautics *Short title.*
Act. 1919, c. 11, s. 1; 1922, c. 34, s. 7.

2. In this Act, unless the context otherwise "Minister." requires, "Minister" means the Minister of National Defence. 1922, c. 34, s. 7.

3. It shall be the duty of the Minister

*Duties of
Minister.*

- (a) to supervise all matters connected with aeronautics;
- (b) to study the development of aeronautics in Canada and in other countries, and to undertake such technical research as may be requisite for the development of aeronautics, and to co-operate with other institutions in carrying out such research;
- (c) to construct and maintain all Government aerodromes and air stations, including all plant, machinery and buildings necessary for their efficient equipment and upkeep;
- (d) to control and manage all aircraft and equipment necessary for the conduct of any of His Majesty's services;
- (e) to operate such services as the Governor in Council may approve;
- (f) to prescribe aerial routes;
- (g) to co-operate with other officers of His Majesty, and to assist in the carrying out of any services under their jurisdiction which may require aerial work of any nature, and to collaborate with the officers employed in existing air services of His Majesty in such extension of their present work as the development of aeronautics may require;

- (h) to take such action as may be necessary to secure, by International Regulation or otherwise, the rights of His Majesty in respect of His Government of Canada in International Air Routes;
- (i) to co-operate with the officers of his Department on all questions relating to the air defence of Canada;
- (j) to co-operate with the Air staffs or authorities of other governments or countries for any purposes pertaining to air services;
- (k) to investigate, examine and report on all proposals for the institution of commercial air services within or partly within Canada or the limits of the territorial waters of Canada;
- (l) to consider, draft, and prepare for approval by the Governor in Council such regulations as may be considered necessary for the control or operation of aeronautics in Canada or within the limits of the territorial waters of Canada; and
- (m) to perform such other duties as the Governor in Council may from time to time impose. 1919, c. 11, s. 3; 1922, c. 34, s. 7.

Powers of Minister to make regulations with approval of Governor in Council.

4. Subject to approval by the Governor in Council, the Minister shall have power to regulate and control aerial navigation over Canada and the territorial waters of Canada, and in particular, but not to restrict the generality of the foregoing terms of this section, he may, with the approval aforesaid, make regulations with respect to

- (a) licensing pilots and other persons engaged in the navigation of aircraft, and the suspension and revocation of such licences;
- (b) the registration, identification, inspection, certification and licensing of all aircraft;
- (c) the licensing, inspection and regulation of all aerodromes and air-stations;
- (d) the conditions under which aircraft may be used for carrying goods, mails and

passengers, or for the operation of any commercial service whatsoever, and the licensing of any such services;

- (e) the conditions under which goods, mails and passengers may be imported and exported in aircraft into or from Canada or within the limits of the territorial waters of Canada, or may be transported over any part of such territory;
- (f) the prohibition of navigation of aircraft over such areas as may be prescribed, either at all times or at such times or on such occasions only as may be specified in the regulation, and either absolutely or subject to such exceptions or conditions as may be so specified;
- (g) the areas within which aircraft coming from any places outside of Canada are to land, and the conditions to be complied with by any such aircraft;
- (h) aerial routes, their use and control;
- (i) the institution and enforcement of such laws, rules and regulations as may be deemed necessary for the safe and proper navigation of aircraft in Canada or within the limits of the territorial waters of Canada; and
- (j) organization, discipline, efficiency and good government generally of the officers and men employed in the Air Force.

2. Any person guilty of violating the provisions of any such regulation shall be liable, on summary conviction, to a fine not exceeding one thousand dollars, or to imprisonment for any term not exceeding six months, or to both fine and imprisonment.

3. All regulations enacted under the provisions of this Act shall be published in the *Canada Gazette*, and, upon being so published, shall have the same force in law as if they formed part of this Act.

4. Such regulations shall be laid before both Houses of Parliament within ten days after the publication thereof if Parliament is sitting, and if Parliament is not sitting, then within ten

days after the next meeting thereof. 1919, c. 11, s. 4; 1922, c. 34, s. 7.

Officers
and men.

5. The Minister may employ such officers and men under this Act as may be authorized by the Governor in Council, under such conditions as to discipline and pay as the Governor in Council may determine, and may make such arrangements for their proper training, housing, board, clothing and equipment as may be deemed necessary and as may be approved by the Governor in Council. 1919, c. 11, s. 5; 1922, c. 34, s. 7.

Civ.
staff.

6. Such officers, clerks and employees as may be necessary for the proper administration of this Act may be employed in the manner authorized by law. 1919, c. 11, s. 6; 1918, c. 12.

Governor
in Council
may prescribe
compensation
payable for
death or
injury,
directly
resulting from
a flight
undertaken
in course
of duty.

7. The Governor in Council may make regulations prescribing the compensation to be paid, the persons to whom, and the manner in which, such compensation shall be payable, for the death or injury resulting directly from a flight undertaken in the course of duty in the public service of Canada of any person employed in the public service of Canada, or employed under the direction of any department of the public service of Canada.

2. Such regulations shall not extend to the payment of compensation for any death or injury in respect of which provision for the payment of compensation or a gratuity or pension is made by any other Act, unless the claimant elects to accept the said compensation, instead of the compensation, gratuity or pension under any such other Act. 1922, c. 6, s. 1.

Payment of
expenses,
etc., under
Act.

8. All salaries mentioned herein and all expenses incurred under the provisions of this Act shall be paid out of such money as may be appropriated by Parliament therefor. 1919, c. 11, s. 7.

AIR REGULATIONS, 1938

PART I

SHORT TITLE AND INTERPRETATION

1. These regulations may be cited as The Air Regulations, 1938.
2. (1) In these regulations, unless the context otherwise requires:—
 - (a) "Minister" means the Minister of Transport.
 - (b) The word "aircraft" shall comprise all machines which can derive support in the atmosphere from reactions of the air. (See I.C., Annex A.)
 - (c) The word "aerodyne" shall mean an aircraft whose support in flight is derived dynamically from the reaction on surfaces in motion relative to the air. (See I.C., Annex A.)
 - (d) The word "aeroplane" shall mean a mechanically driven aerodyne supported in flight by aerodynamic reactions on surfaces remaining fixed under the same conditions of flight. (See I.C., Annex A.)
 - (e) The word "aerostat" shall mean an aircraft supported in the air statically. (See I.C., Annex A.)
 - (f) The word "airship" shall mean a mechanically driven aerostat with means of directional control. (See I.C., Annex A.)
 - (g) The term "glider" means an aerodyne not mechanically driven supported in flight by aerodynamic reactions on surfaces remaining fixed under the same conditions of flight. (See I. C., Annex A.)
 - (h) The word "balloon" shall mean an aerostat (free or captive) not mechanically driven.
 - (i) "Aerodrome" means and includes an area of land or water or other supporting surface normally used for the arrival and departure of aircraft.
 - (j) "Airport" means an aerodrome designated by the Minister as such and constituting a centre for aerial traffic and containing installations necessary for such traffic.

- (k) "Customs airport" means an airport appointed by the Minister with the concurrence of the Minister of National Revenue and the Minister of Mines and Resources as an airport at which aircraft from abroad may alight, and from which aircraft bound abroad may take off.
- (l) "Flying" or "in flight" in relation to an aircraft means that the aircraft is off every supporting surface.
- (m) "Taking off" in relation to an aircraft means and includes the act of abandoning the support of a surface capable of supporting it and the immediately preceding and following acts; in relation to an airship or balloon it means and includes the act of freeing the airship or balloon from restraint, and the immediately preceding and following acts.
- (n) "Alighting" in relation to an aircraft means and includes the act of coming in contact with a surface capable of supporting aircraft, and the immediately preceding and following acts; in relation to an airship or free balloon it means and includes the act of bringing the airship or free balloon under restraint, and the immediately preceding and following acts.
- (o) "Pilot" in relation to an aircraft includes the person in charge thereof.
- (p) "Air Engineer" means a person who is the holder of an Air Engineer's Certificate issued by the Minister authorizing him to act as therein specified.
- (q) "Airport Traffic Control Officer" means a person who is the holder of an Airport Traffic Control Officer's Certificate issued by the Minister authorizing him to act as therein specified.
- (r) (1) "State," in relation to aircraft, means that the aircraft belongs to and is exclusively employed in the service of the Dominion of Canada, of one of the Provinces of Canada, or of some other of His Majesty's Dominions.
 - (2) All state aircraft other than military, customs and police aircraft shall be treated as "commercial" aircraft, and as such shall be subject to all the provisions of these regulations.
- (s) "Commercial aircraft" means an aircraft operated or available for operation for remuneration or reward or for the purpose of any profession, trade, business or industry.

(t) "Owner" when used with reference to an aircraft, means the person in whose name the aircraft is registered, and shall include any person in possession of an aircraft under a contract providing that the ownership, title and property therein is to vest in him at a subsequent time upon payment of the whole or part of the price or the performance of any other condition, except when such aircraft is under bona fide lease or hire to some other person and is under the control of and being operated by such other person, when and in which event the lessee or hirer shall be deemed to be and shall be the owner of such aircraft within the meaning of these regulations.

(u) "Operator" when used with reference to an aircraft, means the person who is in possession or control of the aircraft, whether as owner, lessee, hirer, or otherwise, and shall include the pilot or person in charge thereof.

(v) "Operator" when used with reference to an airport, means the holder of the airport licence, and includes the person in charge of such airport, whether the employee, agent or representative of the holder of the airport licence.

(w) "Acrobatics" means any aerial manoeuvres voluntarily accomplished other than those which are carried out in the course of normal flight or necessitated by an emergency or abnormal flight conditions.

(x) "Contracting State" means any state which is, for the time being, a party to the International Convention relating to Air Navigation, and these regulations shall apply to aircraft possessing the nationality of a state in respect of which state a derogation to His Majesty in the right of the Dominion of Canada has been granted under the protocol, as they apply to aircraft possessing the nationality of a contracting state.

(y) "Night" means between half an hour after sunset and half an hour before sunrise, except in flights beyond Canada when it means between sunset and sunrise.

(z) "Scheduled Air Transport Service" means a service on which aircraft are operated regularly between

between two or more airports at prearranged specified times of arrival and departure.

(2) The Interpretation Act (R.S.C. 1927, c. 1) shall apply to the interpretation of these regulations.

PART II

SECTION I

Registration and Marking

1. (1) Except aircraft flown only for the purpose of experiment or test within twenty miles of an aerodrome, kites and fixed balloons, no aircraft shall fly unless it has been registered as herein provided.

(2) This paragraph does not apply to aircraft duly registered in some other state or a foreign country with which Canada has made a Convention relating to interstate flying.

2. Subject as hereinafter provided, the Minister may define the conditions under which, and the mode in which aircraft may be registered in Canada.

3. No aircraft shall be registered in Canada unless it belongs wholly to a British subject or British subjects, or to a company which has been incorporated within any of His Majesty's Dominions, and of which the president or chairman and at least two-thirds of the directors are British subjects.

4. No aircraft shall be registered in Canada while it is registered in any other of His Majesty's Dominions, or in any foreign country, but it may be registered in Canada upon cancellation of an earlier registration in such other dominion or foreign country. (See I.C., Art. 8.)

5. No aircraft shall be registered in Canada unless either it has been built or made in Canada or any customs duties which are or would become payable upon the importation of the aircraft into Canada have been paid.

6. (1) Upon every registration in Canada the Minister shall assign to the registered aircraft a registration mark and shall grant a certificate of registration for which there shall be payable a fee of \$5.

(2) In the event of any change in the ownership of an aircraft registered in Canada, then

(a) The registration and certificate thereof shall lapse as from the date of such change of ownership, and

(b) The registered owner shall forthwith notify the Minister.

7. (1) When a registered aircraft has been destroyed or permanently withdrawn from use, the registered owner shall forthwith notify the Minister accordingly, and the registration and certificate thereof shall lapse as from the date of such notification.

(2) Certificates of registration shall not remain valid unless endorsed by the Minister at intervals not exceeding twelve calendar months.

8. (1) It shall be a condition of the registration in Canada of any aircraft that, upon the Governor in Council declaring that a national emergency exists or is immediately apprehended, every such aircraft shall be subject to requisition in the name of His Majesty by the Minister or any officer of the Royal Canadian Air Force, and upon being so requisitioned shall become the property of His Majesty subject to its return or the payment of compensation or to both as may be provided by law.

(2) The registration in Canada of any aircraft registered in any of His Majesty's Dominions other than Canada shall be subject to the like condition unless, under the law of that one of His Majesty's Dominions in which the aircraft was registered, it is subject to a paramount right to be requisitioned on His Majesty's behalf.

9. Any certificate of registration of an aircraft may be suspended or cancelled at any time by the Minister for cause.

10. (1) No aircraft registered in Canada shall fly beyond Canada unless it has been certified as airworthy by the Minister.

(2) No aircraft, except private aircraft flying wholly within Canada, shall be registered in Canada until it shall have been certified as airworthy by the Minister.

(3) Every aircraft entering Canada from abroad shall be in possession of a certificate of airworthiness issued by the proper authority of the foreign country or of the Dominion, Colony or Possession of His Majesty in which it is registered.

11. (1) Certificates of airworthiness may be issued by the Minister, and may be limited to flying in specified areas, on specified routes, for specified periods, and upon compliance with specified conditions.

(2) Certificates of airworthiness shall not remain valid unless endorsed by the Minister at intervals not exceeding twelve months.

(3) Aircraft in respect of which a certificate of airworthiness has been issued, under these regulations, may be inspected at any time by an authorized representative of the Minister, and the Minister may, as a result of such inspection, cancel or suspend the certificate of airworthiness of any aircraft deemed to be unsafe.

(4) Any certificate relating to the airworthiness of an aircraft may be cancelled or suspended at any time by the Minister for cause.

12. A fee of five dollars shall be payable for a certificate of airworthiness of an aircraft conforming to a type an example of which has been certified as airworthy in any of His Majesty's Dominions or in any foreign country with which Canada has made a convention providing for the reciprocal acceptance of certificates of airworthiness. A fee of twenty-five dollars shall be payable for a certificate of airworthiness to any other aircraft.

13. No aircraft required to be registered shall fly unless it bears the prescribed nationality and registration marks.

(See I.C., Art. 10.)

SECTION II

LOCATION OF MARKS ON AIRCRAFT

14. In the case of an aircraft registered in Canada the nationality mark shall be the letters "CF" and the registration mark the assigned combination of three capital letters. They shall be painted on the aircraft (or affixed by any other means ensuring a similar degree of permanence) in the following manner:—

(a) *Aerostats*—In the case of airships the marks shall be painted near the maximum cross section so as to appear on both sides and on the upper surface equidistant from the letters on the sides.

In the case of balloons the marks shall appear twice near the maximum horizontal circumference of a spherical balloon and shall be placed as far as possible from one another and, on a non-spherical balloon, near the maximum cross section on both sides immediately above the rigging band on the points of attachment of the basket suspension cable.

In the case of all aerostats, the side marks shall be visible both from the sides and ground.

- (b) *Aeroplanes*—The marks shall be painted once on the lower surface of the main plane structure and once on the upper surface of the main plane structure, the top of the letters to be towards the leading edge. They shall also be painted along each side of the fuselage or of the body between the main planes and the tail planes.
- (c) *Other aerodynes*—The provisions of paragraph (b) shall be applicable to other aerodynes in so far as the latter comprise corresponding elements on which marks could be placed.

SECTION III

MEASUREMENTS OF NATIONALITY AND REGISTRATION MARKS

15. (a) *Aerostats*—In the case of airships the height of the marks shall be equal to at least one-twelfth of the perimeter of the airship at the maximum cross section.

In the case of balloons the height of the marks shall be equal to at least one-fifteenth of the maximum horizontal circumference of a spherical balloon, and in the case of a non-spherical balloon, equal to at least one-twelfth of the perimeter of the balloon at the maximum cross section.

- (b) *Aeroplanes*—The marks to be borne on the wings and the fuselage or body of an aeroplane shall, as regards each group of marks, be formed of letters of equal height, as large as possible without, however, touching the visible outline of the wings, fuselage or body.
- (c) *Other aerodynes*—The provisions of paragraph (b) shall be applicable to other aerodynes in so far as the latter comprise corresponding elements on which marks could be placed.
- (d) *General*—In the case of all aircraft the letters of the nationality and registration marks need not exceed 4 feet in height, and where displayed on the fuselage or body of an aeroplane need not exceed 2 feet in height.

SECTION IV

MEASUREMENT, TYPE OF LETTERS, ETC.

16. (a) As nearly as the constructional features of the aircraft admit, the width of the letters shall be two-thirds of their height, the thickness of the letters shall be one-sixth of their height and a space equal to half the width of the letters shall be left between the letters. The letters shall be painted in plain block type and shall be uniform in shape and size.
(b) The marks shall be of such a colour in relation to the colour of the background on which they are painted as will render them clearly legible.

SECTION V

MAINTENANCE

17. The nationality and registration marks shall be displayed to the best possible advantage, taking into consideration the constructional features of the aircraft. The marks must always be kept clean and visible.

PART III

AIRPORTS

1. No area of land or water shall be used as an airport unless it has been licensed as herein provided.
2. Licences to airports may be issued by the Minister and may be made subject to such conditions respecting the aircraft which may make use of the airport, the maintenance thereof, the marking of obstacles in the vicinity which may be dangerous to flying and otherwise, as the Minister may direct.
3. A fee of ten dollars shall be payable for a licence for an airport.
4. The licence of an airport may be suspended or cancelled by the Minister at any time for cause and shall cease to be valid two weeks after any change in the ownership of the airport, unless sooner renewed to the new owner.
5. Every licensed airport shall be marked by day and by night as may be from time to time directed by the Minister. (See I.C., Annex FII.)
6. The operator of any licensed airport shall be permitted to charge for the use of the airport or for any services

performed only such fees as have been approved by the Minister for such airport. The tariff shall be prominently posted up at the airport.

7. (1) No person shall without authority of the Minister—

- (a) mark any unlicensed surface or place with any mark or display any signal calculated or likely to induce any person to believe that such surface or place is a licensed airport;
- (b) knowingly use or permit the use of an airport for any purposes other than those for which it has been licensed.

(2) The onus of proving the existence of any authority or licence shall be upon the person charged.

8. No water-craft shall cross or go upon that part of the water area forming part of any airport which it is necessary to keep clear of obstruction in order that aircraft may take off and alight in safety, having regard to the wind and weather conditions at the time, and every person in charge of a water-craft is guilty of a breach of these regulations if such craft crosses or goes upon such area after reasonable warning by signal or otherwise.

9. There shall be kept at every licensed airport a register in which there shall be entered immediately after the alighting or taking off of an aircraft a record showing the nationality and registration marks of such aircraft, the name of the pilot, the hour of such alighting or taking off, the last point of call before such alighting and the intended destination of the aircraft.

10. (1) Every licensed airport, and all aircraft and the goods therein shall be open to the inspection of any customs officer, immigration officer, officer or person holding or named in any Writ of Assistance or any officer of or other person authorized by the Minister, but no building used exclusively for purposes relating to the construction of aircraft or aircraft equipment shall be subject to inspection except upon the written order of the Minister.

(2) All state aircraft shall have at all reasonable times, the right of access to any licensed airport, subject to the conditions of the licence.

11. It shall be a condition of every licence to any airport that in case the Governor in Council declares that a national emergency exists or is immediately apprehended the owner of such airport shall comply with such directions, if any,

with respect to the use of the airport as may be given by the Minister or an officer of the Royal Canadian Air Force, subject only to the payment of such compensation as may be provided by law.

PART IV

PERSONNEL

1. (1) No person shall act—
 - (i) as pilot of any aircraft, or
 - (ii) as engineer or inspector of any commercial aircraft, or
 - (iii) as pilot, engineer or inspector of any aircraft registered in Canada when flying outside Canada, or
 - (iv) as airport traffic control officer unless such person holds a certificate issued by the Minister authorizing him so to act. (See I.C., Art. 12.)
- (2) This paragraph shall not apply,—
 - (a) to persons under instruction flying over water or, with the consent of the owner or owners, over an aerodrome and such additional surrounding area as is approved by the Minister or
 - (b) to pilots and engineers of aircraft registered in another contracting state, or a foreign country with which Canada has made a convention relating to interstate flying, who hold licences authorizing them to act as such, issued by the proper authority in the contracting state or foreign country in which the aircraft is registered.
2. (1) Certificates to pilots and engineers may be issued by the Minister and may be limited in time and to flying only under specified conditions, for specified purposes, in specified types of aircraft, on specified routes or otherwise.
(2) Licences issued by a competent authority within His Majesty's Dominions, Colonies or Possessions, to a pilot or engineer, shall for the purpose of these regulations have the same validity and effect as if they had been issued under these regulations.
3. Certificates to inspectors may be issued by the Minister and may be limited in time, to specified types of aircraft, or otherwise.
4. A fee not exceeding \$5 may be charged for any certificate issued under this Part.

5. No person who is not a British subject or a subject of a foreign country which grants reciprocal aeronautical privileges to Canadians on equal terms and conditions with subjects of such foreign country shall be issued with a certificate authorizing him to act as pilot, engineer, or inspector of commercial or state aircraft.

6. A certificate issued to any pilot, engineer, inspector or airport traffic control officer may be suspended or cancelled at any time by the Minister for cause, including the failure to comply beyond Canada with the provisions of these regulations.

PART V

RULES AS TO LIGHTS AND SIGNALS RULES FOR AIR TRAFFIC

(See Annex D)
(I.C.A.N.)

Definitions

For the purposes of the present Part:—

- (a) An aircraft shall be deemed to be "on the surface of the water" when any part of such aircraft is in contact with the water;
- (b) An aircraft in the air or on the surface of the water shall be deemed to be "under way" when it is not moored to the ground or to any fixed object on the land or in the water;
- (c) An aircraft under way in the air or on the surface of the water shall be deemed to be "making way" when it has a velocity relative to the air or water respectively;
- (d) An aircraft shall be considered as not being "under control" when it is unable to execute a manoeuvre as required by this Part or by the regulations for preventing collisions at sea;
- (e) The word "visible" when applied to lights shall mean visible on a dark night with a clear atmosphere. The angular limits laid down in this Part, as shown in Section I below, shall be determined when the aircraft is in its normal attitude for flying on a rectilinear horizontal course;
- (f) The term "plane of symmetry" applied to an aircraft means the plane of symmetry passing through the longitudinal axis of the aircraft.

SECTION I

LIGHTS AND VISUAL SIGNALS TO BE DISPLAYED
BY AIRCRAFT

A.—GENERAL

1. All lights required by these regulations to be displayed by aircraft shall be so displayed in all weathers at night. During such time no lights capable of being mistaken for the lights prescribed in Part B of this Section other than those authorized by the International Convention for Air Navigation shall be exhibited. The lights prescribed in Part B of this Section must not be dazzling.

2. (a) In the event of the failure of any light which is required in Part B of this Section to be displayed by aircraft in flight, the aircraft concerned shall, if the light cannot immediately be repaired or replaced, not take off again until such light has been repaired or replaced;

(b) Where, owing to the difficulty of producing lamps to meet the requirements specified in Part B of this Section as regards sector lights, an overlap of these lights is unavoidable, it shall be kept as small as possible; there shall be no sector in which no light is visible.

3. Nothing in the rules of this Section shall interfere with the operation of any special rules made with respect to the additional signal or station lights for military aircraft, aircraft exclusively employed in State service, or aircraft in group formation, or with the exhibition of recognition signals adopted by owners of aircraft, with the authorization of the Governor in Council.

B.—LIGHTS AND VISUAL SIGNALS TO BE DISPLAYED
BY AIRCRAFT1. *Mechanically Driven Aerodynes*

4. Every mechanically driven aerodyne in the air, on the landing area of a land aerodrome or underway on the surface of the water, shall display the following lights:—

(a) On the right side, a green light, fixed so as to show an unbroken light throughout a dihedral angle of 110° formed by two vertical planes, one of which is parallel to the plane of symmetry of the aircraft

and directed dead ahead, and the other is directed to the right; this light must be visible at a distance of at least two miles;

- (b) On the left side, a red light, fixed so as to show an unbroken light throughout a dihedral angle of 110° formed by two vertical planes, one of which is parallel to the plane of symmetry of the aircraft and directed dead ahead, and the other is directed to the left; this light must be visible at a distance of at least two miles;
- (c) At the rear, a white light, fixed so as to show astern an unbroken light throughout a dihedral angle of 140° formed by two vertical planes and bisected by the plane of symmetry of the aircraft; this light must be visible at a distance of at least three miles.

In cases where, in order to fulfil the conditions of this paragraph, the single light has to be replaced by several lights, the field of visibility of each of these lights shall be so limited that only one of them can be seen at a time.

In the case of an aerodyne with a maximum span of less than sixty-five feet, the lights prescribed in this paragraph may be combined in one or more lamps placed centrally, provided that the conditions of this paragraph as to colour and visibility are fulfilled.

- 5. Every mechanically driven aerodyne, whether at anchor or moored on the surface of the water, shall display where it can best be seen, a white light visible all round the horizon at a distance of at least one mile.

2. *Gliders and Free Balloons*

- 6. (a) In all cases in which, under the rules of this Section, mechanically driven aerodynes are required to display lights, gliders shall display a red light visible so far as practicable in all directions;
- (b) A free balloon shall display a red light placed at least 16 feet and at most 32 feet below the basket and visible, so far as practicable in all directions, at a distance of at least two and a half miles.

3. *Captive Balloons and Kites*

- 7. (a) A captive balloon or a kite, when flown at an altitude exceeding 200 feet above the ground, or at any altitude if it is less than three miles from

an aerodrome or from a recognized air route, shall display a white light placed twelve feet vertically above a red light, these lights to be visible, so far as practicable in all directions, at a distance of at least two and one-half miles. The white light shall be placed at least 16 feet and at most 32 feet below the basket or, if there is no basket, below the lowest part of the balloon or kite. From the mooring cable shall be displayed, at intervals of 1,000 feet measured from the group of two lights prescribed in this sub-paragraph, similar groups of two lights, white and red. If the lowest group of lights is obscured by clouds, one additional group shall be displayed below the cloud base;

In addition, the position of the object to which the balloon or kite is moored on the ground shall be marked by a group of three flashing lights arranged on a horizontal plane at the apexes of a triangle approximately equilateral and measuring at least 82 feet on each side; the side of this triangle, perpendicular to the horizontal projection of the cable, shall be delimited by two red lights; the third light shall be a green light placed opposite the direction of the cable;

- (b) By day the mooring cable of a captive balloon shall have attached to it, at intervals of not more than 650 feet measured from the basket or, if there is no basket, from the lowest part of the balloon, tubular streamers not less than 16 inches in diameter and 7 feet long, and marked with alternate bands of white and red, 20 inches in width;
- (c) By day the mooring cable of a kite shall be marked in the manner prescribed in sub-paragraph (b) above for a captive balloon, or else by streamers of stout paper at intervals of 300 feet measured from the lowest part of the kite. Such streamers, which shall be at least 31 inches long and at least 12 inches wide in their widest part, shall be marked with alternate bands of white and red, 4 inches in width;
- (d) By way of exception to the rules of this paragraph, captive balloons and kites used for meteorological observations, which, owing to their insufficient static lift, cannot display the lights and signals prescribed in this paragraph, may be flown, but only over areas

which are notified as danger areas by notices to airmen. In every case, the position of the object to which the balloon or kite is moored to the ground shall be marked as provided in this paragraph.

4. *Airships*

8. Except as provided in paragraph 9 below, an airship when under way shall display the following lights:—

- (a) Forward, a white light, fixed so as to show forward an unbroken light throughout a dihedral angle of 220° formed by two vertical planes and bisected by the plane of symmetry of the aircraft; this light must be visible at a distance of at least 5 miles;
- (b) On the right side, a green light, fixed so as to show an unbroken light throughout a dihedral angle of 110° formed by two vertical planes, one of which is parallel to the plane of symmetry of the aircraft and directed dead ahead, and the other is directed to the right; this light must be visible at a distance of at least 5 miles;
- (c) On the left side, a red light, fixed so as to show an unbroken light throughout a dihedral angle of 110° formed by two vertical planes, one of which is parallel to the plane of symmetry of the aircraft and directed dead ahead, and the other is directed to the left; this light must be visible at a distance of at least 5 miles;
- (d) At the rear, a white light, fixed so as to show astern an unbroken light throughout a dihedral angle of 140° formed by two vertical planes and bisected by the plane of symmetry of the aircraft; this light must be visible at a distance of at least 3 miles.

In cases where, in order to fulfil the conditions of this paragraph, the single light has to be replaced by several lights, the field of visibility of each of these lights shall be so limited that only one can be seen at a time.

9. An airship which is under way and which is not under control (or which has voluntarily stopped its engines), or which is being towed, shall display the forward and rear lights specified in sub-paragraphs (a) and (d) of paragraph 8 above and, in addition, below the airship, two red lights placed vertically one below the other, 13 feet apart, the top light being 26 feet below the control

car, and both visible, so far as practicable in all directions, at a distance of not less than two and one-half miles.

In addition, it shall, if making way, but not otherwise, display the side lights described in sub-paragraphs (b) and (c) of paragraph 8 above.

By day, it shall display two black balls or shapes, each at least 24 inches in diameter, placed vertically one below the other 13 feet apart, the upper one being 26 feet below the control car, and both visible so far as practicable in all directions. Where necessary, to comply with these conditions, these signals may be duplicated.

10. (a) An airship when moored to a mooring mast shall display at or near the rear a white light visible, so far as practicable in all directions, at a distance of at least 3 miles;
- (b) Every airship moored to the ground or the surface of the water by a cable shall display forward the white light described in sub-paragraph (a) of paragraph 8 of this Part and at the rear the white light described in sub-paragraph (d) of paragraph 8 of this Part. In addition, the airship and the mooring cable shall be lighted or marked in accordance with the requirements of paragraph 7 of this Part for a captive balloon;
- (c) An airship while picking up its mooring, although considered as being under way and not being under control, shall, however, display only the lights prescribed in paragraph 8 of this Part, until it is finally made fast.

SECTION II

GROUND MARKINGS AND SIGNALLING

A.—General

11. The meanings given to the various markings, lights and signals in this Section are reserved to them exclusively.

The location of the ground signals and signal areas provided for in Part B of this Section, at aerodromes open to public use, should as far as possible be indicated in notices to airmen and in plans of aerodromes which are published.

*B.—Ground Markings**Lights and Signals on and in the Vicinity of Aerodromes open to Public Use.*

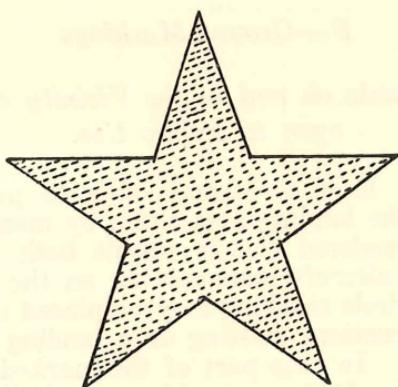
12. At every land aerodrome open to public use, the boundaries of the landing area shall, by means of suitable markings, be rendered clearly visible both to aircraft in the air and to aircraft manoeuvring on the landing area. In addition, a circle marking may be placed on the landing area. All obstructions existing on a landing area shall be clearly marked. In case part of the marked landing area should become unfit for use, this part shall be delimited by clearly visible markings or flags, and may, in addition, be indicated by one or more clearly visible crosses.

13. At every aerodrome open to public use:

(a) (1) The direction of the wind at the landing area shall be clearly indicated by one or more of the recognized methods, e.g., conical streamers, smudge fire, etc.;

(2) If there is a landing T, it shall be used to indicate the compulsory direction for landing and taking off, even should such direction not correspond to the direction of the wind. Normally, the T shall be so placed that the long arm lies along the direction of the wind, with the cross arm set at that end of the long arm from which the wind is blowing. In the event of there being no wind or a slight irregular wind, the T shall be fixed in the direction in which the landing or departure is to be made, and the fact that it is fixed shall be signalled by the presence of a ball, mounted on a mast on the signal area and clearly visible both to aircraft in flight and to those manoeuvring on the landing area;

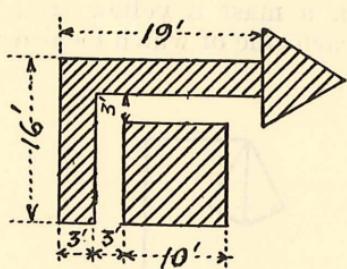
(b) When, by way of exception, at certain aerodromes, the landing area is regarded as divided into two approximately equal zones, one for departure and the other for landing, as provided for in paragraph 43 of this Part, this special arrangement must be indicated by a full star of five points (constituted by a regular non-convex pentagon which could be inscribed in a circle of not less than 50 feet diameter).



(c) (1) When, in conformity with paragraph 35 of this Part, the Minister suspends wholly or partially, in respect of a given aerodrome, the application of the special rules for air traffic mentioned in Section V of the said Part, such suspension shall be indicated by a red square panel, each side of which measures at least 10 feet, placed horizontally;

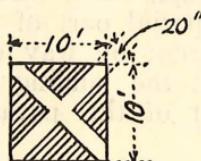


(2) If, during such suspension, it is prescribed among other things that circuits outside the landing area and those for taking off and landing, which are referred to in paragraph 37 (b) and 41 of this Part, are to be right-handed, the red square panel, prescribed in sub-paragraph (c) (1) above, shall, along two of its sides, be bordered by a red rectangular panel at least 3 feet in width, separated from the central panel by at least 3 feet. At the extremity of one of the rectangular panels shall be placed a red triangle so as to indicate that the direction of the circuit is right-handed;

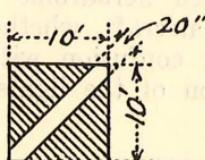


(3) If, however, the only object of the suspension is that circuits should be right-handed, the red square panel shall not be displayed.

(d) (1) When special circumstances call for a prohibition to land liable to be prolonged, use shall be made of a red square panel, placed horizontally, each side of which measures at least 10 feet and the diagonals of which are covered by yellow strips at least 20 inches in width, arranged in the form of an X;

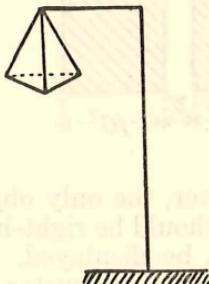


(2) When the bad state of the landing area or any other reason calls for the observance of certain precautions in landing, use may be made of a red square panel, placed horizontally, each side of which measures at least 10 feet and one of the diagonals of which is covered by a yellow strip at least 20 inches in width;



(3) When a landing by means of a radio-electric guide is taking place, the fact may be signalled by

hoisting on a mast a yellow triangular equilateral pyramid, each side of which measures at least 7 feet;



(4) The use of the signals provided for in sub-paragraphs (d) (2) and (d) and (3) above is optional.

- (e) The signals referred to in the above sub-paragraphs of this paragraph shall, whenever possible, be displayed in a special part of the aerodrome selected as a signal area; by way of exception, the wind indicators and the landing T referred to in sub-paragraph (a) of this paragraph may be located elsewhere.
- (f) During periods of poor visibility, the lights existing for night lighting shall be operated by day, whenever possible and in so far as necessary.

14. I. At every aerodrome open to public use and used for night flying, the following provisions shall apply during the working hours of the night service:—

- (a) Dangerous lights.

No lights shall be exhibited at or in the neighbourhood of an aerodrome which may endanger the safety of aircraft, whether by reason of glare, or by causing confusion with or preventing clear visual reception of the lights or signals prescribed in this Part.

- (b) Aerodrome beacon.

The position of the aerodrome may be indicated by a luminous beacon.

II. At every land aerodrome open to public use and used for night flying, the following provisions shall apply during the working hours of the night service:—

(a) Lighting of obstructions.

Fixed red lights shall be exhibited:—

(1) On all obstructions within the landing area which constitute a danger to aircraft in motion on the landing area;

(2) As far as possible, on all obstructions within 1 mile of the boundary of the landing area and constituting a danger to aircraft approaching or leaving the aerodrome in a normal manner. In case it should be impossible to exhibit fixed red lights on such obstructions, their horizontal projection and the centre of the obstructions shall, as far as possible, be clearly indicated by synchronized red flashing or occulting lights, placed on a level with or near to the ground.

(b) Lighting of landing T and of wind indicators.

The landing T, if used, and at least one of the wind indicators, shall be illuminated with fixed lighting, preferably white.

(c) Lighting of signals.

The signals displayed in the signal area shall be suitably illuminated.

(d) Lighting of landing area.

(1) The landing area or the part thereof on which landings should be made shall be illuminated by a floodlight or floodlight system during landing manoeuvres;

(2) In default, one of the following methods may be used:—

First Method: A line of lights spaced 165 feet apart shall be laid out on the ground, consisting of a central section of six white lights to indicate that landings should be made on the adjacent portion of the landing area and on either side of this line, with at least two green lights at one end and at least two red lights at the other end to indicate that landings should be made from the direction of the green lights towards the red lights.

Second Method: Lights shall be laid out on the ground in the form of a T, the long arm of which shall be composed of at least four lights in a line

not less than 820 feet in length. The light at the foot of the T shall indicate the place where the aerodyne should first make contact with the ground and the cross arm of the T shall indicate the place where it should finish its run. Landings may be made on either side of the long arm of the T, but always parallel to that arm; in the event, however, of the area situated on either side of the long arm becoming obstructed, the light indicating the cross arm on that side shall be removed and landing shall be effected on the opposite side.

The direction of landing and take off will be given by the two alternative methods referred to above; the landing T referred to in sub-paragraph 2 of paragraph 13 of this Part shall not, therefore, be used.

(e) Approach lighting.

The most favourable sectors of approach to the landing area may be indicated by green lights.

(f) Boundary lighting.

The boundary of the landing area shall be marked by fixed white or yellow lights, normally laid out 300 feet apart.

Provided that:—

(1) When local conditions render unavoidable the use of gas boundary lights, they may be given an intermittent character.

III. At every water aerodrome open to public use and used for night flying, the rules provided in sub-paragraph II of this paragraph shall equally apply, except in cases of obvious impossibility.

C.—Distress, Urgency and Safety Signals

15. I. The following general provisions apply to all distress, urgency and safety signals:—

- (a) The signals referred to in this paragraph may be transmitted only with the authorization of the commander or person responsible for the aircraft;
- (b) When these signals are sent by radiotelegraphy or radiotelephony, the group or spoken expression shall be sent three times and followed by the group DE and the call sign, also sent three times, of the station which sends it. In the case of "safety" messages, the frequency to be employed is that for "distress" messages.

II. Distress signals.

When an aircraft is threatened by grave and imminent danger and requests immediate assistance, the following signals shall be used or displayed, either together or separately, before the sending of a message:

(a) By radiotelegraphy:

The signal - - - - - (See Note (1)).

(b) By radiotelephony:

The spoken expression "MAYDAY" (corresponding to the French pronunciation of the expression "m'aider").

(c) By visual signalling:

(1) The signal - - - - - with signalling apparatus.

(2) A succession of red pyrotechnical lights fired at short intervals.

(3) The two-flag signal corresponding to the letters NC of the International Code of Signals (See Note (2)).

(4) The distant signal, consisting of a square flag having, either above or below it, a ball or anything resembling a ball (See Note (2)).

(d) By sound signalling:

(1) The signal - - - - - with any sound apparatus.

(2) A continuous sounding with any sound apparatus (See Note (2)).

NOTE (1).—When the signal II (a) above is sent by radiotelegraphy on 500 kc/s (600 m.), it shall, when possible, in order to be received by automatic maritime apparatus, be followed by the automatic alarm signal consisting of a series of twelve dashes of four seconds each, separated by an interval of one second.

NOTE (2).—The signals II (c) (3), II (c) (4) and II (d) (2) above are normally for use by seaplanes on the surface of the water, but they may also be used by aircraft in the air.

III. Urgency signals.

(a) When an aircraft wishes to give notice of difficulties which compel it to land without requiring immediate assistance, the following signals shall be used, either together or separately, before the sending of a message:

(1) By radiotelegraphy:

The group PAN, the letters of which must be well separated so that the signals AN may not be transformed into one signal P.

(2) By radiotelephony:

The spoken expression PAN (corresponding to the French pronunciation of the word "panne").

In cases where, owing to the rapidity of the manoeuvres to be executed, the aircraft is unable to transmit the intended message by radiotelegraphy or radiotelephony, the signal PAN not followed by a message retains this meaning.

(3) By visual signalling:

By day: A succession of white pyrotechnical lights.

By night: A succession of white pyrotechnical lights, or a succession of short and intermittent flashes with the navigation lights.

(b) When an aircraft has a very urgent message to transmit concerning its own safety, or that of an aircraft, ship or vehicle, or the safety of any person on board or within sight, the following signals shall be used, either together or separately, before the sending of the message. As a general rule they are addressed to a specific authority.

(1) By radiotelegraphy:

The group XXX;

The letters of each group and the successive groups shall be clearly separated from each other.

(2) By visual signalling:

Either a succession of green pyrotechnical lights; or a succession of green flashes with signalling apparatus.

IV. Safety signals.

When an aircraft is about to transmit a message concerning the safety of navigation or giving important meteorological warnings, the following signals shall be used, either together or separately, before the sending of a message:

(a) By radiotelegraphy:

The group TTT;

The letters of each group and the successive groups shall be clearly separated from each other.

(b) By radiotelephony:

The French word "SÉCURITÉ" (to which correspond in English pronunciation the syllables SAY-CURE-E-TAY).

(c) By visual signalling:

International visual signalling procedure, by signalling apparatus or flags.

D.—Other Signals to or From Aircraft

16. At aerodromes open to public use:

(a) By day and by night, when there is an officer controlling the traffic, he shall, except as permitted by sub-paragraph (b) of this paragraph, use the following visual signals:

(1) To authorize movement on the landing area, but excluding authorization to take off, he shall direct at the aircraft an intermittent green luminous beam.

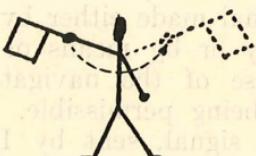
(2) To authorize taking off, he shall direct at the aircraft a continuous green luminous beam.

(3) To prohibit taking off or any movement on the landing area, he shall direct at the aircraft an intermittent red luminous beam.

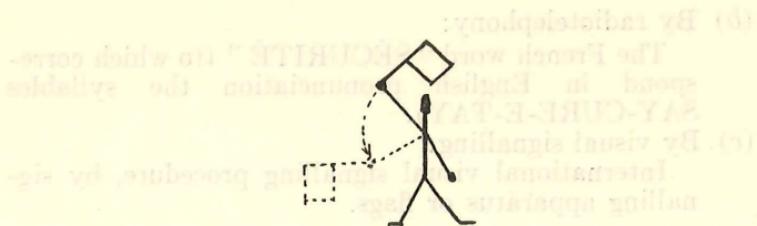
The signals (a) (1), (a) (2) and (a) (3) above may be preceded by the last three letters of the registration group of the aircraft to which the signal is addressed; these three letters shall be sent in the International Morse Code, by using a luminous beam of the same colour as the signal which is to be sent.

(b) By day, when there is on the landing area an officer controlling the traffic, he may use the following signals:

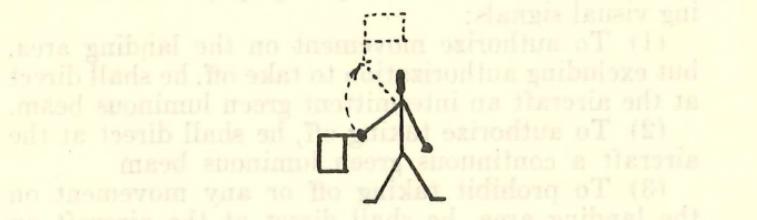
(1) To authorize movement on the landing area, but excluding authorization to take off, he shall wave a small white or green flag in the direction to be followed:



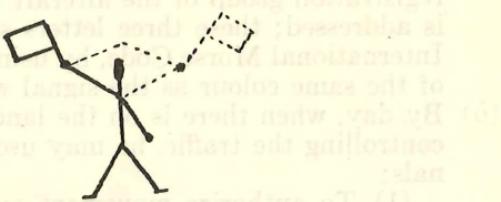
(2) To authorize taking off, he shall lower a small white or green flag in the direction of taking off;



(3) To prohibit taking off or movement towards the taking off point, he shall raise a small red flag;



(4) To prohibit landing, he shall wave a small red flag vertically above his head.



(c) An aircraft wishing to land at night, without being compelled to do so, on an aerodrome having a ground control, shall, before landing, ask permission by a signal made either by radiotelegraphy or radiotelephony or by means of a lamp or a projector, the use of the navigation lights for this purpose not being permissible.

The visual signal, sent by International Morse Code, shall be composed of the last three letters of the registration group of the aircraft; this signal shall be repeated for as long as may be necessary.

The reply will be given from the ground to the aircraft either by radiotelegraphy or radiotelephony

or by visual signal, it being understood that when permission has been asked by visual signal the reply shall always be by visual signal. The visual signal shall consist of a repetition of the same three-letter sign made with the signalling lights of the aerodrome.

These signalling lights shall be constituted either by a group of lights arranged on a horizontal plane at the apexes of an equilateral triangle, each side of which measures from 3 to 10 feet, or by a luminous beam directed at the aircraft.

The colour green shall be used to give permission to land and the colour red to prohibit landing.

17. At every aerodrome, the firing of a red pyrotechnical light or the display of a red flare from the ground, whether by day or by night and notwithstanding any previous permission, shall be taken as an instruction to aircraft in flight that they are not to land for the moment and to aircraft manoeuvring on the landing area that they are to stop moving.

At aerodromes provided with the triangular device provided for in paragraph 16 (c) above, the emission by such device of intermittent red lights shall, whether by day or by night and notwithstanding any previous permission, instruct aircraft in flight that they are not to land for the moment.

18. To require an aircraft to land, the following signals shall be used:—

(a) By day: a series of projectiles discharged at intervals of ten seconds, each showing on bursting black smoke.

(b) By night: a series of projectiles discharged at intervals of ten seconds, showing on bursting white lights or stars.

In addition, if it is necessary to distinguish amongst several the aircraft which is to land, an intermittent white luminous beam shall be directed at that aircraft.

Provided that, when the authority who desires to give the order to land is able to establish a radio-electric communication with the aircraft, this order may be given by using the means of communication established.

19. To warn an aircraft that it is in the vicinity of a prohibited area and should change its course, the following signals shall be used:—

- (a) By day: a series of projectiles discharged at intervals of ten seconds, each showing on bursting orange smoke.
- (b) By night: a series of projectiles discharged at intervals of ten seconds, showing on bursting orange lights or stars.

Provided that, when the authority who desires to prescribe the change of course referred to in this paragraph is able to establish a radioelectric communication with the aircraft, this order may be given by using the means of communication established.

SECTION III

GENERAL RULES FOR AIR TRAFFIC

20. Subject to the provisions of paragraphs 27 and 33 (a) of this Part, mechanically driven aerodynes shall always give way to aerodynes not mechanically driven and to aerostats, and mechanically driven aerostats to aerostats not mechanically driven and to aerodynes.

21. An airship which is under way and which is not under control (or which has voluntarily stopped its engines) shall, for the application of the rules of this Section, be classed as a free balloon.

22. When circumstances permit, an aircraft can ascertain risk of collision with another aircraft by carefully watching the successive compass bearings and angles of elevation of the latter. It shall consider that risk of collision with this other aircraft exists if neither the bearing nor the angle of elevation changes appreciably and if the distance between the two aircraft diminishes.

The term "risk of collision" includes all risk of accident due to undue proximity of other aircraft.

23. Every aircraft which is required by the rules of the foregoing paragraphs of this Section to give way to another to avoid collision, shall keep a safe distance, having regard to the circumstances of the case.

24. While observing the provisions relative to risk of collision contained in paragraphs 22 and 23 above, a mechanically driven aircraft must always manoeuvre

according to the rules contained in paragraphs 25 to 29 hereafter, as soon as it is apparent that, if it pursued its course, it would not pass clear of another aircraft.

25. When two mechanically driven aircraft are meeting end on or nearly end on, each shall, without prejudice to the application of the provisions of paragraph 20 of the present Part, alter its course to the right.

26. Subject to the application of the provisions of paragraphs 20 and 33 (c) of this Part, when two mechanically driven aircraft are on courses which cross, the aircraft which has the other on its own right side shall keep out of the way of the other.

27. An aircraft overtaking any other shall keep out of the way of the overtaken aircraft by altering its own course to the right, and must not pass by diving.

Every aircraft coming up with another aircraft from any direction more than 110° from ahead of the latter, i.e., in such a position with reference to the aircraft which it is overtaking that at night it would be unable to see either of that aircraft's side lights, shall be deemed to be an overtaking aircraft, and no subsequent alteration of the bearing between the two aircraft shall make the overtaking aircraft a crossing aircraft within the meaning of these rules, or relieve it of the duty of keeping clear of the overtaken aircraft until it is finally past and clear.

As by day the overtaking aircraft cannot always know with certainty whether it is forward or abaft the direction mentioned above from the other aircraft, it should, if in doubt, assume that it is an overtaking aircraft and keep out of the way.

28. Every aircraft which is obliged by the rules of this Part to keep out of the way of another aircraft shall, if the circumstances of the case admit, avoid passing over or under the other, or crossing ahead of it.

29. Where, by any of the rules of this Part, one of two aircraft is to keep out of the way, the other shall keep its course and speed. When, however, in consequence of thick weather or any other cause, the aircraft having the right of way finds itself so close that collision cannot be avoided by the action of the giving-way aircraft alone, it shall take such action as will best aid to avert collision.

30. Every aircraft in a cloud, fog, mist or other conditions of bad visibility, shall proceed with due care, regard being had to the existing circumstances.

Every aircraft flying beneath clouds shall always do so, so far as it is safe and practicable, at such a distance below the clouds as will enable it readily to see and be seen.

31. In order to obviate the increased risk of collision which exists on air traffic routes, the following rules shall be observed by aerodynes and airships when flying on or in the vicinity of such routes:—

- (a) An aircraft flying by compass along the straight line (rhumb line) joining two points on an air traffic route in common use, shall keep such line at least 1 mile on its left;
- (b) An aircraft following, either an officially recognized air traffic route, or a route frequented by aircraft and indicated on the ground by a line of landmarks such as a road, railway, river, canal, coastline, etc., shall keep such route at least 1,000 feet on its left;
- (c) An aircraft shall not fly keeping on its right any of the lines or routes referred to in this paragraph, except at a distance therefrom sufficient to avoid aircraft following such lines or routes in accordance with the rules of this paragraph;
- (d) An aircraft crossing one of the lines or routes referred to in this paragraph shall cross it at right angles as rapidly as possible;
- (e) In the case of pre-arranged flights in group formation, the aircraft of the leader of the group shall lead the flight in such a manner that every aircraft in the group can comply with the above rules of this paragraph.

32. To facilitate the application of the rules for air traffic contained in this Part, the pilot of a mechanically driven aerodyne shall, save in exceptional circumstances, be placed either in the plane of symmetry of the aerodyne or on the left-hand side of such plane.

SECTION IV

SPECIAL RULES FOR AIR TRAFFIC ON AND IN THE VICINITY OF ALL AERODROMES

33. The rules of this Section shall be applied on and in the vicinity of all aerodromes:—

- (a) Aircraft about to land on an aerodrome shall be given free way;

- (b) An aircraft about to take off shall not attempt to do so until there is no risk of collision with another aircraft;
- (c) In the case of two mechanically driven aerodynes approaching an aerodrome for the purpose of landing, the aerodyne flying at the greater height shall be responsible for avoiding the aerodyne at the lower height, but the latter shall, if the contingency arises, comply with the provisions of paragraph 27 of this Part.

SECTION V

SPECIAL RULES FOR AIR TRAFFIC ON AND IN THE VICINITY OF AERODROMES OPEN TO PUBLIC USE

A.—General

34. (a) The rules of this Section shall be applied on and in the vicinity of aerodromes open to public use. They concern only land and water aerodromes for mechanically driven aerodynes, which are designated in this Section by the single word "aerodynes."

(b) Aerodynes not mechanically driven on and in the vicinity of aerodromes open to public use shall comply with the rules of this Section as far as possible.

35. The application of the rules of this Section may be temporarily suspended by the Minister, partially or wholly, in respect of a given aerodrome.

In such cases the suspension shall be indicated by the appropriate signals provided for in paragraph 13 (c) of this Part.

36. At land aerodromes, a neutral zone, situated along the perimeter of the landing area and at the approaches to the hangars, may be set apart for aerodynes manoeuvring on the ground.

B.—Flight Over or in the Vicinity of the Landing Area

37. Subject to any special local regulations which may exist:

- (a) Flight over a landing area at a lower height than 2,000 feet is prohibited for aerodynes, save in the case of a departure or landing;
- (b) Every aerodyne flying outside a landing area at a distance of less than 6,000 feet from the nearest

point of such area shall, unless it is flying at a greater height than 2,000 feet, keep the landing area on its left.

38. Aerodynes are prohibited from engaging in aerial acrobatics in the vicinity of aerodromes, at a distance of less than five miles from the nearest point of the perimeter of the aerodrome, unless they are flying at a greater height than 6,000 feet.

39. When an aerodyne is about to land by means of a radioelectric guide, other aerodynes, in order to avoid collision, must conform to any local rules in force which may be applicable or, in default of such rules, fly as low as possible below the clouds.

40. No fixed balloon or kite shall be elevated in the vicinity of an aerodrome without a special authorization.

C.—Rules to be Observed for Departures and Landings

41. If an aerodyne starting from or about to land on an aerodrome makes a circuit or partial circuit, the turning must be made clear of the landing area and must be left-handed (anti-clockwise), so that during such circuit the landing area shall always be on its left.

As an exception, the turning must be right-handed when the signal indicated in paragraph 13 (c) (2) or in paragraph 13 (c) (3) of this Part is displayed.

42. (a) Every aerodyne taking off from or landing at an aerodrome shall do so upwind, except when the natural conditions of the aerodrome do not permit. If, however, there is a landing T as provided for in paragraph 13 (a) (2) of this Part, or a line of lights as provided for in paragraph 14 II (d) (2) of the said Part, the aerodyne shall take off or land in the direction indicated by this T (i.e. by following the direction of the long arm of the T towards the cross arm of that T) or by the line of lights;
- (b) Landings shall be preceded by a descent in a straight line, commencing at least 3,000 feet outside the perimeter of the landing area;
- (c) Every aerodyne landing at an aerodrome shall leave clear on its left any aerodyne which has already landed or is already landing, or which is taking off or about to take off;
- (d) Every aerodyne taking off from an aerodrome shall leave clear on its left any aerodyne which is already taking off;

- (e) In observing the rules of this paragraph, every aerodyne, when landing or taking off, shall leave a reasonable space on its right for other aerodynes to land or take off;
- (f) At an aerodrome, taking off or landing simultaneously by two or more aerodynes, unless pre-arranged, is prohibited;
- (g) For the purposes of this paragraph, two or more aerodynes taking off or landing simultaneously by pre-arrangement shall be regarded as a single aerodyne.

43. By way of exception, at certain aerodromes, the landing area may be regarded as divided into two approximately equal zones, by a vertical plane in the direction of departure and landing defined in paragraph 42 (a) above. For an observer facing in the direction towards which departures and landings are to be made, the zone on the right will be the one reserved for landings and the zone on the left the one reserved for departures. This special arrangement must be indicated by the signal provided for in paragraph 13 (b) of this Part.

Every aerodyne landing at one of these aerodromes shall do so in conformity with the provisions of paragraph 42 (a) and (b) above, as far as possible to the left in the zone reserved for that purpose, but leaving clear on its left any other aerodyne which has already landed or which is landing.

Every aerodyne taking off from one of these aerodromes shall do so in conformity with the provisions of paragraph 42 (a) above, as far as possible to the left in the zone reserved for that purpose, but leaving clear on its left any other aerodynes which are already taking off.

44. On land aerodromes having a ground control, no aerodyne having proceeded on to the landing area with the intention of taking off shall take off until it has received permission to do so by the signal prescribed in paragraph 16 (a) (2) or 16 (b) (2) of this Part.

D.—Rules to be Observed for Manoeuvres on the Ground

45. (a) Land aerodromes.

Every aerodyne moving on the ground in the landing area shall normally do so in the direction of landing. It may, however, in order to shorten its course, cross the landing area to reach its take off point or the boundary, provided that, in the course of such movement, turns are always made

to the left, that it gives free way to every aircraft leaving or landing, and that it conforms to the general air traffic rules (paragraphs 25 to 29 of this Part).

(b) Water aerodromes.

The rules for land aerodromes contained in subparagraph (a) above apply equally to water aerodromes, subject however to the provisions contained in paragraph 47 of this Part.

46. On aerodromes having a ground control, in addition to the observance of the rules of paragraph 45 above, no aerodyne shall proceed on to the landing area until it has received permission to do so by the signal prescribed in paragraph 16 (a) (1) or 16 (b) (1) of this Part.

SECTION VI

RULES RELATING TO AIRCRAFT ON THE SURFACE OF THE WATER

47. Every aircraft manoeuvring under its own power on the water shall conform to the International Regulations for Preventing Collisions at Sea, and for the purposes of the said regulations shall be deemed to be a steam vessel.

Provided that:

- (a) In conforming with the above-mentioned regulations, it shall be borne in mind that steam vessels in narrow channels are not able to manoeuvre so as to avoid collisions with aircraft;
- (b) The aircraft shall carry only the lights specified in Section I of this Part, and not those prescribed for steam vessels in the said International Regulations for Preventing Collisions at Sea.

SECTION VII

MISCELLANEOUS PROVISIONS

48. The dropping of ballast other than fine sand or water from aircraft in the air is prohibited.

49. In conforming with the rules of Sections III, IV and V of this Part, due regard shall be had to all dangers of navigation and collision and to any special circumstances which may render a departure from these rules necessary in order to avoid immediate danger.

50. Nothing in the provisions of this Part shall exonerate any aircraft, or the operator, pilot or crew thereof, from the consequences of any neglect in the use of lights or signals, or of any neglect to keep a proper lookout, or of the neglect of any precaution which may be required by the ordinary practice of the air, or by the special circumstances of the case.

51. When an aircraft of a contracting State is in the territory of a non-contracting State, the provisions of this Part shall apply to it only in so far as they do not conflict with the laws of that non-contracting State.

PART VI

DANGEROUS FLYING

1. No aircraft shall fly over any city, town or village except at such an altitude as will enable the aircraft to alight outside the city, town or village should the means of propulsion fail through mechanical breakdown or other cause, except for the purpose of alighting at or immediately after taking off from a licensed airport.

2. No person in any aircraft shall—

- (a) carry out any acrobatic flying over any city or town area or populous district; or
- (b) carry out any acrobatic flying or exhibition flying over any regatta, race meeting, or meeting for public games or sports, except when especially arranged for in writing by the promoters of such regatta or meeting and authorized by the Minister; or
- (c) carry out any flying which, by reason of low altitude or proximity to persons or dwellings, is dangerous to public safety; or
- (d) drop or cause or permit to be dropped from an aircraft any article capable of causing injury or damage, except mail with the authority of the Postmaster General, and emergency supplies.

(See I.C., Annex D.)

- (e) Unless he is an authorized flying instructor actually engaged in giving dual instruction or is alone in the aircraft, permit or cause such aircraft to roll, spin, loop or execute any other evolution involving unnecessary risk.

3. No person shall enter or attempt to enter any aircraft in flight or leave or attempt to leave any aircraft in flight

except for the purpose of making a parachute descent; or give upon any aircraft in flight, any gymnastic or other like exhibition.

PART VII

SCHEDULED AIR TRANSPORT SERVICE

1. No commercial aircraft shall be operated on any international or interurban scheduled air transport service unless the said service has been licensed by the Minister.

2. The Minister may designate any air route as requiring a licence for its scheduled operation, and no commercial aircraft shall be operated on a scheduled air transport service over such route unless the said service has been licensed by the Minister.

3. A licence for a scheduled air transport service may be limited to operation on a prescribed aerial route, for specified periods, and upon such conditions as the said licence may specify.

4. A fee not exceeding \$25 may be charged for any licence issued under this *Part VII*.

PART VIII

GENERAL PROVISIONS

1. (1) No aircraft carrying explosives shall carry a passenger other than the owner of the explosives or his accredited representative.

This regulation does not apply to ammunition permitted for hunting or sporting purposes or required as emergency equipment.

(2) No person shall send or take upon any aircraft any explosives without distinctly marking their nature on the outside of the package containing the same and otherwise giving notice of the same to the person in charge of the aircraft whose duty it is to receive such goods.

2. No aircraft shall carry any mails without the written authority of the Postmaster General.

3. No commercial aircraft carrying passengers shall take off or alight after dark at an unlighted airport, and no aircraft carrying passengers shall fly by night over any route which is not adequately lighted and approved for night flying by the Minister.

4. No person shall install or work any radiotelegraph or radiotelephone apparatus in any aircraft registered in Canada except in accordance with the terms of a licence granted by the Minister, and no person shall work any radiotelegraph or radiotelephone apparatus on any aircraft except in accordance with the provisions of the International Telecommunication Convention for the time being in effect in Canada and of such regulations made in accordance therewith as may be subscribed to by the Government of Canada.

5. (1) No aircraft shall fly over any area defined by Order in Council as a prohibited area under these regulations or so near thereto that the angle between the perpendicular and a line from the aircraft to the nearest point of such prohibited area is less than twenty degrees provided that, when in any area or district whatsoever, any race, contest, exhibition or event of public interest is held or takes place, the provisions of this paragraph shall apply with respect to such area or district and to such type or types of aircraft both as may be specified by the Minister to the same extent as if said area or district had been defined by Order in Council as a prohibited area. (See I.C., Art. 3.)

(2) No photographic apparatus shall be installed in, nor shall any photographs be taken from, any aircraft while operating in or over Canadian territory, unless such aircraft is registered in Canada or in another of His Majesty's Dominions, Colonies or Possessions.

(3) No aircraft shall fly over any penitentiary in Canada, or over any prison or public institution or lands appertaining thereto as may be designated for the purpose of a penitentiary by the Governor in Council pursuant to the Penitentiary Act, and no aircraft shall be used for the purpose of obtaining any information whatsoever in regard to any such penitentiary, prison or public institution or lands appertaining thereto, or in regard to any fortress, arsenal, factory, dockyard, camp, ship, office or other like place in Canada belonging to His Majesty, or for the making of any photographs, sketches or plans of any such place or places without permission of the Minister.

6. (1) No commercial aircraft shall fly on any day unless it has previously been inspected by an Air

Engineer on that day, or, in the case of a flight commencing not later than eight o'clock in the morning at some time between noon of the previous day, or the termination of the last flight made by the aircraft on the previous day, whichever is the later, and the commencement of the flight in question, and until such Air Engineer has signed certificates of the fitness of the aircraft to fly and the certificates have been countersigned by the pilot. A certificate shall be entered in the log book of the aircraft and the log book of each engine and duplicates thereof may be delivered to the owner of the aircraft.

(2) If the Minister has reason to believe, on complaint or otherwise, that a commercial aircraft within Canada is intended or is about to proceed on any flight in contravention of these regulations or while in a condition unfit for flight, he may give such directions and take such steps, by way of provisional detention of the aircraft, or otherwise in relation thereto as may be necessary for the purpose of causing the circumstances relating to the flight to be investigated, or the aircraft to be inspected by authorized representatives of the Minister, and may, upon the result of such investigation or inspection, cause the aircraft to be detained until he is satisfied that the regulations are being complied with, or until such alterations or repairs as he may consider necessary to render the aircraft fit for flight have been made.

(3) No person acting as, or carried in an aircraft for the purpose of acting as pilot, engineer or operating member of the crew thereof, shall, while so acting or carried, be in a state of intoxication, or in a state in which, by reason of his having taken or used any sedative, narcotic, stimulant, drug or preparation, his capacity to so act is impaired.

(4) If the Minister has reason to believe, on complaint or otherwise, that a private aircraft within Canada is intended or is about to proceed on any flight in contravention of these regulations or while in a condition unfit for flight, he may give such directions and take such steps by way of provisional detention of the aircraft or otherwise in relation thereto, as may be necessary for the purpose of causing the circumstances relating to the flight to be investigated, or the aircraft to be inspected by

authorized representatives of the Minister and may, upon the result of such investigation or inspection, cause the aircraft to be detained until he is satisfied that the regulations are being complied with, or until such alterations or repairs as he may consider necessary to render the aircraft fit for flight have been made. No aircraft which has been so detained shall fly until authorized so to do by the Minister or his authorized representatives.

7. The pilot of every commercial aircraft shall enter in the aircraft log book the weight of the disposable load carried. He shall be responsible that the gross weight does not exceed that specified in the certificate of airworthiness and that the load is properly secured.

8. (1) An aircraft may be required to alight by any officer of or other person authorized by the Minister or by any officer of customs or immigration or by any officer of the Royal Canadian Air Force on duty as such, and every aircraft to which a signal to alight is made shall forthwith do so at the nearest practicable place to that from which the signal to alight is made, unless the signal is made from within a prohibited area in which case the aircraft shall alight as near as practicable to, but not within, such area. (See I.C., Art. 15.)

(2) Any person not within one of the classes described in this paragraph who, without good and sufficient cause, makes any signal to alight shall be guilty of a breach of these regulations, and the onus shall be upon such person to establish that he had such good and sufficient cause.

9. Every aircraft in flight shall have on board its certificate of registration, the certificate of airworthiness, if any, the licences of all the members of the crew requiring licences, the authority and licence for the equipment and working of the wireless installation, if any, and a journey log book containing the following particulars:—

- (a) The category to which the aircraft belongs, its nationality and registration marks; the full name, nationality and residence of the owner; the name of the maker, the description and the carrying capacity of the aircraft;
- (b) In addition for each journey:—
 - (i) The name of the pilot;
 - (ii) The number of passengers;

(iii) The place, date and hour of departure and of arrival, including intermediate alightings.

10. (1) There shall also be kept for every commercial aircraft:—

(a) An aircraft log book which shall contain the following particulars:—

- (i) Category to which the aircraft belongs; its nationality and registration marks; full name, nationality and residence of the owner; name of maker; carrying capacity of the aircraft;
- (ii) Type and series number of engine; type of propeller showing number, pitch, diameter and maker's name;
- (iii) Type of wireless apparatus fitted;
- (iv) Table showing the necessary rigging data for the information of persons in charge of the aircraft and of its maintenance;
- (v) A fully detailed engineering record of the life of the aircraft, including all acceptance tests, overhauls, replacements, repairs and all works of a like nature.

(b) An engine log book for each engine, which shall contain the following particulars:—

- (i) Type of engine, series number, maker's name, power, normal and maximum revolutions of engine, date of production and first date put into service;
- (ii) Registration mark and type of aircraft in which the engine has been installed;
- (iii) A fully detailed engineering record of the life of the engine, including all acceptance tests, hours run, overhauls, replacements, repairs, and all work of a like nature. (See I.C., Annex C.)

(2) Entries in log books shall be made in ink as soon as possible after the events they record. Entries to be made in the journey log book may be first made in a rough note book, but shall be permanently entered within twenty-hour hours after the events recorded. The first entries in the aircraft and engine log books shall be made by the constructor; subsequent entries in these log books and all entries in other log books shall be made by the pilot or other competent person. All entries shall be signed by the person by whom they are made.

No erasures shall be made in, nor any leaf torn from any log book. (See I.C., Annex C.)

(3) Log books shall be preserved for two years after the last entry. (See I.C., Art. 20.)

11. A copy of the two last preceding paragraphs shall be inserted in every log book. (See I.C., Annex C.)

12. The owner of every commercial aircraft shall annually, on or before the 31st day of January in each year, make a return to the Minister, giving such particulars with regard to the operation of the aircraft as the Minister may prescribe.

13. Every person required to hold a certificate under these regulations, and the owner or pilot of any aircraft, or the operator of any airport, shall produce his certificate or the certificate or licence issued in respect of such aircraft or airport at any time on demand by any peace officer or any officer of customs or immigration or any officer of, or other person authorized by, the Minister. The owner or pilot of an aircraft shall produce, upon the like demand, all log books (including any rough note books) and other papers kept in relation to such aircraft.

14. Any cancelled or expired certificate or licence shall be forthwith delivered up to the Minister by the person to whom it was issued.

15. (1) No aircraft of a state with which Canada has not concluded a convention relating to interstate flying shall fly over or alight in Canada except with the express written permission of the Minister.

(2) No aircraft shall engage in the carriage of persons or goods for hire between points in Canada unless it is registered as a commercial aircraft in Canada or in some other of His Majesty's Dominions, Colonies or Possessions, nor shall any aircraft carry out any operation for remuneration or reward wholly within Canada unless it is registered as a commercial aircraft in Canada, in some other of His Majesty's Dominions, Colonies or Possessions, or in a contracting State.

(3) In these regulations references to persons carried for hire or reward include references to persons carried in aircraft for the purposes of instruction in flying for which payment is made.

16. If any aircraft flies in breach of these regulations the owner of the aircraft, as well as the pilot thereof and

any other member of the crew who has been a party to the breach, shall be liable therefor. If a breach of these regulations relates to the use of an aerodrome, the operator thereof shall be liable, if such operator permitted or could reasonably have prevented such breach.

17. Any person who obstructs or impedes any person in the exercise of his powers and duties under these regulations shall be guilty of a breach thereof.

18. Failure to observe or comply with the conditions upon which any certificate or licence is issued shall be deemed to be a breach of these regulations.

19. The owner of every aircraft shall upon notice by mail to his registered address from any officer or other person authorized by the Minister advise such officer or other person of the then condition and station of the aircraft.

20. (1) If any person is killed or injured because of or on board any aircraft, it shall be the duty of the pilot and of the owner thereof forthwith to report the date and place of the accident by telegram and full particulars thereof by mail to the Minister provided that the performance of these obligations by either the pilot or the owner shall relieve the other of them.

(2) In the case of an aircraft registered in Canada being damaged to such an extent that repairs other than ordinary running repairs or replacements are necessary, the owner or pilot thereof shall notify the Minister forthwith, giving particulars of such damage.

(3) No aircraft involved in any accident causing death or injury to any person shall be removed or otherwise interfered with, without permission from the Minister.

Provided, however, that the aircraft or any part thereof may be displaced or removed as may be necessary to extricate persons, to remove mails, to prevent destruction by fire or other cause, or to avoid danger to persons or property.

21. (1) The Minister may constitute or authorize the constitution of Boards of Enquiry of one or more members for the purpose of investigating the circumstances of any accident or of any alleged breach

of these regulations, and any Board of Enquiry so constituted shall have power to take evidence upon oath or otherwise.

(2) Every person required to give evidence before a Board of Enquiry shall attend and give evidence upon being so required by writing under the hand of any member of the Board.

(3) Any person who attends and gives evidence before any such Board of Enquiry shall be entitled to receive witness fees and travelling expenses according to the tariff of fees payable to witnesses in the Superior Court of the Province in which such evidence is given.

22. Nothing in these regulations shall exonerate any aircraft or the owner, pilot or crew thereof, from the consequences of any neglect in the use of lights or signals, or of any neglect to keep a proper lookout, or of the neglect of any precaution which may be required by the ordinary practice of the air, or by the special circumstances of the case.

(See I.C., Annex D.)

23. In conforming with these regulations due regard shall be had to all dangers of navigation and collision, and to any special circumstances which render a departure therefrom necessary in order to avoid immediate danger, and it shall be a good defence to any proceedings for a breach of these regulations if it is proved to have been due to stress of weather or other unavoidable cause.

(See I.C., Annex D.)

24. These regulations do not apply:—

- (a) to military aircraft of His Majesty when manœuvring as directed by an officer of any British Air Force in the course of his duty as such officer;
- (b) to foreign military aircraft flying over or alighting in Canada in accordance with the terms of any special permission; or
- (c) to other aircraft or to persons or aerodromes to the extent to which they have been relieved by the Minister from compliance therewith.

25. These regulations shall come into force forthwith upon their publication in *The Canada Gazette*.

ARRANGEMENT BETWEEN CANADA AND THE UNITED STATES OF AMERICA RELATING TO AIR NAVIGATION

ARTICLE I

(a) The present arrangement between the United States of America and Canada relates to the operation in either country of civil aircraft duly registered in territory of the other country in accordance with its requirements as to registration.

(b) The term "civil aircraft" shall for the purposes of this arrangement be understood to mean all aircraft other than military, naval, customs and police aircraft.

ARTICLE II

The present arrangement shall apply to continental United States of America, including Alaska, and to Canada, including their territorial waters.

ARTICLE III

(a) Each of the Parties to the present arrangement shall grant, in time of peace, liberty of passage above its territory to aircraft of the other Party duly registered in the territory of such other Party, provided that the conditions set forth in the present arrangement are observed.

(b) It is, however, agreed that the establishment and operation by an enterprise of one of the Parties of a regular air route or service to, over or away from the territory of the other Party, with or without a stop, shall be subject to the consent of such other Party.

(c) Any air transport enterprise of either Party applying for permission to operate such a route or service shall be required to submit its application through diplomatic channels.

ARTICLE IV

(a) The aircraft of each of the Parties, passengers and goods carried thereon and personnel employed on the aircraft shall, while within or over the territory of the other Party, be subject to the laws in force in that territory, including all regulations relating to air traffic applicable to foreign aircraft, the transport of passengers and goods, and public safety and order, as well as any regulations concerning entry and clearance, immigration, passports, quarantine and customs.

(b) Subject to the provisions of the preceding paragraph and to the laws and regulations therein specified, the carriage of passengers and the import or export of any goods which may lawfully be imported or exported will be permitted in aircraft of either Party into or out of territory of the other Party; and (subject to the same proviso) such aircraft, passengers and goods carried thereon and personnel employed on the aircraft shall enjoy in the territory mentioned the same privileges as aircraft of such other Party and shall not, merely by reason of the nationality of the aircraft, be subjected to any other or higher duties or charges than those which are or may be imposed on aircraft of the territory referred to or the aircraft of the most favoured country, engaged in international commerce, or on their passengers, goods and personnel.

ARTICLE V

The regulations (together with any subsequent alterations therein) relative to air traffic in force in territory of either Party shall be communicated to the other Party.

ARTICLE VI

The fuel and lubricating oils retained on board aircraft of either Party arriving in or leaving territory of the other Party shall be exempt from customs duty, even though the fuel and lubricating oils so retained are used by the aircraft on a flight in that territory.

ARTICLE VII

Aerodromes open to public air traffic in territory of either Party shall, so far as they are under its control, be open to aircraft of the other Party, which (subject to the same proviso) will also be entitled to the assistance of the meteorological, radio, lighting and day and night signalling services at such aerodromes. Subject again to the same proviso, the scale of charges at such aerodromes for landing and accommodation shall be the same for aircraft of each of the Parties.

ARTICLE VIII

(a) The term "air commerce" as used in the succeeding paragraph of this article means:—Navigation of aircraft in territory of either Party in the conduct or furtherance

of a business; and the commercial transport of passengers or goods between any two points in the territory of either Party.

(b) Air commerce may, in the territory of either Party, be reserved exclusively to its own aircraft, with the reservation of the stipulations contained in Article III concerning regular air routes or services for which special consent is necessary, the aircraft of either Party may, nevertheless, proceed from any aerodrome open to public air traffic in territory of the other Party to any other such aerodrome for the purpose of taking on board or landing the whole or part of their goods or passengers, provided that such goods are covered by through bills of lading and such passengers hold through tickets, issued respectively for a journey the starting place and end of which are not both points between which air commerce has been reserved; and such aircraft while so proceeding from one aerodrome to another shall, notwithstanding that both such aerodromes are points between which air commerce has been reserved, be entitled to the treatment set out in this arrangement.

ARTICLE IX

(a) Air traffic may be prohibited over specified areas in the territories to which this arrangement applies, it being understood that no distinction in this matter will be made by either Party between its aircraft engaged in international commerce and the aircraft of the other Party likewise engaged. Lists of the areas above which air traffic is thus prohibited in territory of either Party, as well as any subsequent alterations therein, will be communicated as soon as possible to the other Party.

(b) In exceptional circumstances air traffic above the whole or any part of the territories to which this arrangement applies may temporarily, and with immediate effect, be limited or prohibited, but no distinction in this respect will be made by either Party between the aircraft of the other Party and the aircraft of any other foreign country.

(c) In the event of any aircraft finding itself over a prohibited area it must, as soon as it is aware of the fact, give the signal of distress prescribed in the Rules of the Air in force in the territory in which the prohibited area is situated, and a landing must be effected as soon as practicable at an aerodrome in that territory, outside but as near as possible to the prohibited area. The obligation

to land applies also in respect to flights over prohibited areas by aircraft to which the special signal intended to draw their attention shall have been given.

ARTICLE X

(a) All aircraft of either Party flying in or over the territory of the other Party must carry clear and visible nationality and registration marks whereby they may be recognized during flight.

(b) Such aircraft must also be provided with certificates of registration and airworthiness and with all the other documents prescribed for air traffic in the territory in which they are registered.

(c) The persons employed on such aircraft who perform duties for which a certificate of competency of licence is required in the territory in which the aircraft is registered, must carry such documents as are prescribed by the regulations in force in that territory.

(d) The other persons employed on board must carry documents showing their duties in the aircraft, their profession, identity and nationality.

(e) Each of the Parties reserves the right to require lists of the passengers and persons employed on board as well as a manifest of the goods carried on the aircraft.

(f) The certificate of airworthiness, certificates of competency or licences issued or rendered valid by the competent authorities of either country in respect of its aircraft or of the crew of such aircraft shall be recognized as having the same validity in the territory of the other country as the corresponding documents issued or rendered valid by the competent authorities of such other country; provided that with respect to certificates of competency or licences issued or rendered valid by either country in favour of nationals of the other country, such recognition may be refused by the latter country.

ARTICLE XI

(a) Aircraft of either Party may, in or over the territory of the other Party, carry radio apparatus only if a licence to install and work such apparatus, which licence must be carried in the aircraft, has been issued by the competent authorities of the territory in which the aircraft is registered. The use of such apparatus shall be in accordance with the regulations on the subject issued by the competent authorities of the territory flown over.

(b) Such apparatus may be used only by the personnel employed on board who are provided with a special licence for the purpose, issued by the competent authorities of the territory in which the aircraft is registered.

(c) For reasons of safety each of the Parties to this arrangement reserves the right to issue regulations relative to the obligatory equipment of aircraft with radio apparatus when in or over its territory.

ARTICLE XII

(a) No explosives, arms of war or munitions of war may be carried by aircraft of either Party in or above the territory of the other Party, or by the personnel employed on board or passengers, except by permission of the competent authorities of that territory.

(b) However, the carriage of accessories necessary to the operation and navigation of the aircraft, such as rockets, flares, and similar devices is not prohibited.

(c) Each of the Parties reserves the right to require that the carriage by aircraft of photographic apparatus be prohibited or regulated by the competent authorities of the territory flown over.

(d) Each of the Parties reserves the right, for reasons of public order and safety, to limit or prohibit the carriage in or above its territory of articles other than those enumerated in paragraph (a) of this article, provided that no distinction is made in this respect between its national aircraft employed in international traffic and the aircraft of the other Party so employed.

ARTICLE XIII

The competent authorities of each of the Parties shall have the right to search aircraft of the other Party on landing or departure and to inspect the certificates and other documents prescribed in the preceding articles.

ARTICLE XIV

(a) Aircraft of either Party entering or leaving territory of the other Party shall make a first landing at and depart from only an aerodrome open to public air traffic and designated as an airport of entry where facilities exist for the enforcement of customs, passport, quarantine and immigration regulations and the entry and clearance of aircraft; and no intermediate landing other than a forced landing may be effected before arriving at such an airport

on entry into the territory concerned or after leaving such an airport on departure from that territory. In special cases, and subject to the same provisions as to intermediate landing, the competent authorities may allow a first landing at or a departure from another aerodrome where the above-mentioned facilities have been arranged.

(b) Each of the Parties reserves the right to require that aircraft entering its territory shall make its first landing at the airport of entry nearest to the point where the aircraft has crossed the frontier, with the understanding, however, that in this event, permission may be granted for the aircraft to make its first landing at an airport of entry other than the one nearest to the frontier.

(c) In the event of a forced landing or of a landing as provided in paragraph (c) of Article IX, not at an airport of the class mentioned in the preceding paragraph, the personnel employed on board and passengers must conform to the entry and clearance, customs, passport, quarantine and immigration regulations in force in the territory in which the landing occurs.

(d) Lists of aerodromes in territory of either Party which are designated as airports of entry for the purposes of this article will be communicated as soon as possible to the other Party. Any subsequent alterations in these lists will also be communicated to such other Party.

ARTICLE XV

The competent authorities of either Party may require that on entering or leaving its territory the aircraft of the other Party shall do so between specified points. Any requirements of either Party in this respect and any subsequent alterations therein shall be communicated to the other Party. Subject to any such requirements and to the provisions of this arrangement, aircraft of each Party may choose their own route of entry or departure in entering or leaving territory of the other Party.

ARTICLE XVI

No article or substance, other than ballast, may be unloaded or otherwise discharged from aircraft of either Party in the course of flight in or over the territory of the other Party unless special permission to that effect is given by the competent authorities of the territory in which the unloading or discharge occurs. For the purposes of this article ballast means fine sand or water only.

ARTICLE XVII

(a) The present arrangement or any part thereof may be terminated by either Government at any time upon sixty days' notice given in writing to the other Government.

(b) On the date that the present arrangement becomes effective, the reciprocal arrangement between the United States of America and Canada for the admission of civil aircraft, the issuance by each country of pilots' licences to nationals of the other country and the reciprocal acceptance of certificates of airworthiness for aircraft imported as merchandise, entered into by an exchange of notes dated August 29, 1929 and October 22, 1929, will be supplanted with the exception of the provisions of the latter arrangement which set forth the conditions governing the issuance of pilots' licences and the acceptance of certificates of airworthiness for aircraft imported as merchandise.

ARRANGEMENT BETWEEN CANADA AND THE UNITED STATES OF AMERICA RELATING TO THE ISSUANCE OF CERTIFICATES OF COMPETENCY OR LICENCES FOR THE PILOTING OF CIVIL AIRCRAFT**ARTICLE I**

(a) The present arrangement between the United States of America and Canada relates to the issuance by the competent authorities of each country of pilot certificates of competency or licences to nationals of the other country for the piloting of civil aircraft.

(b) The term "civil aircraft" shall for the purpose of this arrangement be understood to mean all aircraft other than military, naval, customs and police aircraft.

(c) Either country issuing certificates of competency or licences to nationals of the other country for the piloting of civil aircraft, as defined in the preceding paragraph, reserves, however, the right to limit such issuance to the operation of civil aircraft for non-commercial purposes.

ARTICLE II

Pursuant to the provisions of Article I, the competent United States authorities will issue pilot certificates of competency or licences to nationals of Canada, upon a

showing that they are qualified under the regulations of the United States covering the issuance of such certificates or licences.

ARTICLE III

Pursuant to the provisions of Article I, the competent Canadian authorities will issue pilot certificates of competency or licences to nationals of the United States, upon a showing that they are qualified under the regulations of Canada covering the issuance of such certificates or licences.

ARTICLE IV

Subject to the provisions of Articles I and II, pilot certificates of competency or licences issued by the competent United States authorities to nationals of Canada shall entitle them to the same privileges in the matter of air pilotage as are granted by pilot certificates of competency or licences issued to nationals of the United States.

ARTICLE V

Subject to the provisions of Articles I and III, pilot certificates of competency or licences issued by the competent Canadian authorities to nationals of the United States shall entitle them to the same privileges in the matter of air pilotage as are granted by pilot certificates of competency or licences issued to nationals of Canada.

ARTICLE VI

(a) The present arrangement shall be subject to termination by either Government upon sixty days' notice given in writing to the other Government.

(b) On the date that the present arrangement becomes effective, the reciprocal arrangement between the United States of America and Canada for the admission of civil aircraft, the issuance by each country of pilots' licences to nationals of the other country and the reciprocal acceptance of certificates of airworthiness for aircraft imported as merchandise, entered into by an exchange of notes dated August 29, 1929 and October 22, 1929, will be supplanted in so far as it sets forth the conditions governing the issuance by each country of pilots' licences to nationals of the other country.

ARRANGEMENT BETWEEN CANADA AND THE UNITED STATES OF AMERICA RELATING TO CERTIFICATES OF AIRWORTHI- NESS FOR EXPORT

ARTICLE I

(a) The present arrangement applies to civil aircraft constructed in continental United States of America, including Alaska, and exported to Canada; and to civil aircraft constructed in Canada and exported to continental United States of America, including Alaska.

(b) This arrangement shall extend to civil aircraft of all categories, including those used for public transport and those used for private purposes as well as to components of such aircraft.

ARTICLE II

The same validity shall be conferred by the competent United States authorities on certificates of airworthiness for export issued by the competent Canadian authorities for aircraft subsequently to be registered in the United States as if they had been issued under the regulations in force on the subject in the United States, provided that such aircraft have been constructed in Canada in accordance with the airworthiness requirements of Canada.

ARTICLE III

The same validity shall be conferred by the competent Canadian authorities on certificates of airworthiness for export issued by the competent United States authorities for aircraft subsequently to be registered in Canada as if they had been issued under the regulations in force on the subject in Canada, provided that such aircraft have been constructed in continental United States or Alaska in accordance with the airworthiness requirements of the United States.

ARTICLE IV

(a) The competent United States authorities shall arrange for the effective communication to the competent Canadian authorities of particulars of compulsory modifications prescribed in the United States, for the purpose of enabling the Canadian authorities to require these modifications to be made to aircraft of the types affected, whose certificates have been validated by them.

(b) The competent United States authorities shall, where necessary, afford the competent Canadian authorities facilities for dealing with noncompulsory modifications which are such as to affect the validity of certificates of airworthiness validated under the terms of this arrangement, or any of the other original conditions of validation. They will similarly give facilities for dealing with cases of major repairs carried out otherwise than by the fitting of spare parts supplied by the original constructors.

ARTICLE V

(a) The competent Canadian authorities shall arrange for the effective communication to the competent United States authorities of particulars of compulsory modifications prescribed in Canada, for the purpose of enabling the United States authorities to require these modifications to be made to aircraft of the types affected, whose certificates have been validated by them.

(b) The competent Canadian authorities shall, where necessary, afford the competent United States authorities facilities for dealing with noncompulsory modifications which are such as to affect the validity of certificates of airworthiness validated under the terms of this arrangement, or any of the other original conditions of validation. They will similarly give facilities for dealing with cases of major repairs carried out otherwise than by the fitting of spare parts supplied by the original constructors.

ARTICLE VI

(a) The competent authorities of each country shall have the right to make the validation of certificates of airworthiness for export dependent upon the fulfilment of any special conditions which are for the time being required by them for the issue of certificates of airworthiness in their own country. Information with regard to these special conditions in respect to either country will from time to time be communicated to the competent authorities of the other country.

(b) The competent authorities of each country shall keep the competent authorities of the other country fully and currently informed of all regulations in force in regard to the airworthiness of civil aircraft and any changes therein that may from time to time be effected.

ARTICLE VII

The question of procedure to be followed in the application of the provisions of the present arrangement shall be the subject of direct correspondence whenever necessary, between the competent United States and Canadian authorities.

ARTICLE VIII

(a) The present arrangement shall be subject to termination by either Government upon sixty days' notice given in writing to the other Government.

(b) On the date that the present arrangement becomes effective, the reciprocal arrangement between the United States of America and Canada for the admission of civil aircraft, the issuance by each country of pilots' licences to nationals of the other country and the reciprocal acceptance of certificates of airworthiness for aircraft imported as merchandise, entered into by an exchange of notes dated August 29, 1929 and October 22, 1929, will be supplanted in so far as it sets forth the conditions governing the reciprocal acceptance of certificates of airworthiness for aircraft imported as merchandise.

FORMS

The following forms have been approved by the Minister in the exercise of the jurisdiction conferred upon him by The Air Regulations, 1938, to fix the terms upon which certificates and licences to personnel, aircraft and airports may be issued.

The terms therein contained are consequently of authority and breach of the conditions upon which any certificate or licence is issued constitutes a breach of the Regulations and is punishable under Section 4 (2) of the Aeronautics Act.

The forms which appear hereafter have been printed for general use and may be obtained upon application to the Department of Transport.

The forms are subject to change without notice.

APPLICATION FOR REGISTRATION OF AN AIRCRAFT

AIR REGULATIONS, 1938

(To be sent in duplicate)

The Controller of Civil Aviation,

Department of Transport,
Ottawa.

Application is hereby made for the registration under the Air Regulation 1920 (including Certificate of Airworthiness if required), of the aircraft described below.

These are enclosed fees as checked below:—

Registration.....	\$ 5 00
Certificate of Airworthiness.....	\$ 5 00

(See note below)

The particulars given below are true in every respect.

Signature of Applicant.....
Date of Application.....

OWNER, OR OWNERS OF AIRCRAFT

Name in full (IN BLOCK CAPITALS)	Permanent Address	Nationality
.....
.....
.....
.....

IF OWNER IS A COMPANY, NAMES OR DIRECTORS, ETC.

Name in full (IN BLOCK CAPITALS)	State whether President, Chairman or Director	Address	Nationality
.....
.....
.....
.....

Purpose for which aircraft is to be used (State, Commercial, Passenger, Freight or Private).....

.....

Usual Station.....

Date of manufacture or reconstruction.....

Crew required.....

Accommodation for what number of passengers.....

Note.—The fee for original registration is \$5.00. In the case of change of ownership, the fee for re-registration is \$5.00. The fee for certificate of airworthiness, not required for a private aircraft, is \$5.00, which certificate is re-issued on change of ownership without further fee.

DESCRIPTION OF AIRCRAFT

Heavier than, or Lighter than Air..... made by.....
 Type..... Maker's No.....

	In Flight	Reduced or Folded for Storage
Span or breadth o/a in feet.....		
Length o/a in feet.....		
Height o/a in feet.....		

Cubic Capacity (of Airship or Balloon).....
 Weight equipped, but without load, fuel, or oil.....
 Total weight authorized (fully loaded) in lbs..... Air speed..... miles
 per hour.....

EQUIPMENT—(Give number and type).

1. Instruments.....
2. Gauges.....
3. Lights.....
4. Signals.....
5. Fire Extinguishers.....
6. Parachutes.....
7. Tools.....
8. Other Equipment.....

	Engine No. 1	Engine No. 2	Engine No. 3	Engine No. 4
ENGINES—				
Name of Type.....				
Pusher or Tractor.....				
Right or Left Hand.....				
No. of Cylinders.....				
H.P.....				
Bore.....				
Stroke.....				

REGISTRATION

(Not to be filled in by Applicant)

Aircraft inspected on.....
 Particulars accurate as corrected.....
 Modifications from type are indicated on annexed sheet.....
 Registration recommended with the following special conditions.....

Date..... *Signature*..... Allotted.....

Registration *{* approved or.....
 Registration *{* not approved for reasons annexed.....

Superintendent of Air Regulations



CANADA

APPLICATION FOR CERTIFICATE OF AIRWORTHINESS FOR
EXPORT

Controller Civil Aviation,
Civil Aviation Branch,
Department of Transport,
Ottawa, Ont.

Application is hereby made in triplicate for a CERTIFICATE OF AIRWORTHINESS FOR EXPORT for the aircraft described below.

1. Present Owner.....
Address.....
2. Manufacturer.....
Address.....
3. Foreign Purchaser.....
Address.....
4. For Export to.....

DESCRIPTION OF THE AIRCRAFT

5. Type 6. Series 7. Manufacturer's Serial No.

8. Place and date of manufacture of aircraft.

9. Landplane, seaplane and/or skiplane.

10. Number of planes. 11. Number of engines.

12. Number of crew. Dual } Control
Single }

13. Seating capacity (exclusive of crew).

14. CLASSIFICATION OF AIRCRAFT
 (a) Category—Normal, Special, Acrobatic.
 (Strike out inapplicable terms).
 (b) Subdivision:

C.A. 27

1,000-4-37
H.Q. 1062-15-12

15. WEIGHTS

- (a) Weight of aircraft bare (including water in radiators).....lbs.
- (b) Weight of fuel (tanks full).....lbs.
- (c) Weight of oil (tanks full).....lbs.
- (d) Weight of crew.....lbs.
- (e) Weight allowed for operational equipment.....lbs.
- (f) Maximum pay load authorized (when the fuel and oil tanks are full).....lbs.
- (g) Maximum total weight authorized (a) Landplane.....lbs.
(b) Seaplane.....lbs.

16. DETAIL WEIGHT OF

- (a) Wing group.....lbs. (b) Tail surfaces.....lbs.
- (c) Fuselage or hull.....lbs. (d) Power plant.....lbs.
- (e) Landing gear or floats.....lbs.

(The total of this group should equal the weight of aircraft bare.)

17. Position of Centre of Gravity with full authorized load measured from the leading edge of the lower wing and from the centre line of thrust

- (a) Landplane.....
- (b) Seaplane.....

18. List of equipment including instruments.

.....
.....
.....

19. DIMENSIONS

- (a) Over-all span..... (b) Over-all length.....(c) Over-all height.
- (d) Wing curve..... (e) Sweepback.....(f) Dihedral.....
- (g) Stagger..... (h) Gap.....
- (i) Total wing area, including ailerons.....

20. UPPER PLANE

LOWER PLANE

(a) Span.....	(a) Span.....
(b) Chord.....	(b) Chord.....
(c) Incidence.....	(c) Incidence.....
(d) Area, with ailerons.....	(d) Area, with ailerons.....
(e) Auxiliary aerofoils.....	

21. AILERONS

(a) Number.....	(b) Arrangement.....
(c) Upper, length.....	Lower, length.....
Upper, chord.....	Lower, chord.....
Upper, area.....	Lower, area.....
(d) Span of aileron balance.....	(e) Balance area.....
(f) Total aileron area.....	

22. CENTRE SECTION

(a) Dimensions.....	(b) Area.....
---------------------	---------------

23. HORIZONTAL TAIL PLANE

(a) Area..... (b) Span..... (c) Max. chord.....
 (d) Shape..... (e) Range in degrees.....
 (f) Angle between neutral position of Tail Plane and the Upper Wing
 chord at centre section.....

24. ELEVATORS

(a) Span..... (b) Chord..... (c) Total area.....
 (d) Balance area..... Span.....
 (e) Distance from elevator hinge to leading edge of lower wing.....

25. VERTICAL FIN

(a) Area..... (b) Shape.....

26. RUDDER

(a) Height..... (b) Chord (not including balance).....
 (c) Total area..... (d) Balance area.....
 (e) Distance from rudder hinge to leading edge of lower wing.....

27. FUSELAGE OR HULL

(a) Maximum cross section area.....
 (b) Width at main planes.....

28. LANDING GEAR OR FLOATS

(a) Type.....
 If of foreign manufacture submit proof of type approval from country of origin.
 (If products from U.S.A. insert A.T.C. number.)
 (b) Shock-absorbing system..... (c) No. of wheels..... Size of
 tires.....
 (d) Track..... (e) Braking device.....
 (f) Number of floats..... Track.....
 (g) Number of skis..... Track.....
 (h) Horizontal distance from leading edge of lower wing to C/L of
 axle (in flying position).....

29. AIRSCREWS

(a) Number of airscrews..... Type.....
 If of foreign manufacture, submit proof of type approval from country of origin.
 (If products from U.S.A. insert A.T.C. number.)
 (b) Make..... (c) Drawing number.....
 (d) Diameter..... (e) Pitch.....
 (f) Clearance (flying position).....

30. POWER PLANT

(a) Manufacturer of engine.....
 (b) Manufacturer's Serial Number..... (c) Type.....

If of foreign manufacture, submit proof of type approval from country of origin.
 (If products from U.S.A. insert A.T.C. number.)

(d) Location..... H.P. at..... R.P.M.
 (e) International rating:..... H.P. at..... R.P.M.
 (f) Compression ratio.....

30. POWER PLANT—*Concluded.*

(g) Hourly consumption in pounds at the above-mentioned power (per engine):

Fuel.....	Oil.....
(h) Gear ratio.....	Weight of water.....
(i) Weight, dry.....	
(j) Ignition, Battery or Magnets.....	Make..... No. used.....
(k) Carburettors, Make.....	Type..... No. used.....
(l) Special remarks.....	

31. LUBRICATION

(a) Capacity of oil tanks..... Imp. gals. (b) Oil pressure.....
(c) Type of pump..... Wet or dry sump.....

32. FUEL SYSTEM

(a) Number of tanks..... (b) Location.....
(c) Capacity (Imp. Gals).....
(d) Description of fuel supply system.....

33. Licence or temporary registration issued and displayed.....

Date.....

Signature of Applicant.



CANADA

AIR REGULATIONS

APPLICATION FOR PRIVATE AIR PILOT'S CERTIFICATE
(To BE SUBMITTED IN DUPLICATE)

Name of Applicant..... (IN BLOCK CAPITALS, SURNAME PRECEDING)

Permanent Address.....

(ANY CHANGE IN ADDRESS TO BE NOTIFIED IMMEDIATELY)

Nationality.....

Date of Birth..... Place of Birth.....

CONTROLLER OF CIVIL AVIATION,
DEPARTMENT OF TRANSPORT,
OTTAWA, ONTARIO.

I hereby apply for a certificate authorizing me to act as a Private Air Pilot. My whole experience in flying has been as follows:—

Type	Hours Flown			Area or Route	Year
	1st Pilot	2nd Pilot	Passenger		
.....
.....
.....
.....
.....
.....
.....
.....

(The experience claimed above must be verified by duly certified log books or by a certificate from competent authorities. If space is insufficient, give information on separate sheet.)

*I am a qualified military pilot, having become so while serving with the.....

*I am not a qualified pilot, but am ready upon notice to undergo the practical tests and examinations required, arrangements having been made for carrying out the practical tests at..... aircraft.

I have received flying instruction at the following Schools or Clubs:—

I hereby declare that the above particulars are true in every respect.
I enclose a fee of two dollars (\$2.00) and three unmounted photographs of myself (not larger than 2" x 3").

(Make cheque payable to the RECEIVER GENERAL.)

Signature of Applicant.....

Date of Application.....

*Strike out paragraph inapplicable.

CONDITIONS OF ISSUE OF PRIVATE AIR PILOT'S CERTIFICATE

1. A Private Air Pilot's Certificate does not authorize the holder to fly for hire, or for any reward except a prize in a contest under the auspices of a recognized aeronautical association.

2. A Certificate will be issued only after flying tests and examinations as set out below, except that qualified military pilots may be exempt from flying tests.

3. No private Air Pilot shall take up a passenger in any aircraft unless he has flown an aircraft of that type for at least two hours, either alone or accompanied by an instructor, within the last six months and has completed at least twenty-five hours' solo flying.

4. Certificates remain valid only if the holder passes a satisfactory medical examination at least every twelve months and after any serious accident or illness, and may be cancelled at any time for cause.

5. Flying tests for private air pilot's certificates, which must be completed to the satisfaction of the examiners, will be as follows, the candidate being alone in the aircraft:—

(i) Tests for Taking Off and Alighting.

(a) A flight during which the pilot shall attain a minimum altitude of 5,000 feet above the sea level. The descent shall finish with a glide, the engine shut off at 5,000 feet above the sea level. The alighting shall be made without restarting the engine, and the aircraft shall be brought to rest within 300 feet of a point fixed beforehand by the examining officer of the test.

(b) Four flights in each of which the pilot shall ascend to at least 1,500 feet above the ground or water and shall, after shutting off his engine at that height, and without restarting it, land and bring the aircraft to rest within 150 feet of a mark selected before taking off.

(ii) Tests of Skill.

On one of the four flights last mentioned, the pilot shall fly at an altitude of not less than 1,500 feet above the ground or water around two marks situated at least 550 yards apart, making, to the satisfaction of the Examining Officer, a series of five figure-of-eight turns, each turn reaching one of the marks.

(iii) Spins.

A certificate from the Flying Instructor that the applicant is competent and has carried out spins satisfactorily, must be furnished before the applicant will be admitted to tests.

6. The conditions of the five specified flights must be exactly complied with in a total of no more than seven attempts. If available a barograph shall be carried, and the graph, signed by the examiners, will be attached to their report which will cover all incidents, especially the alighting.

7. The examination will be upon the provisions of the Air Regulations, especially those parts relating to lights, signals, rules of the air, and traffic in the vicinity of aerodromes.

8. The medical examination will be made by a medical officer approved by the Minister of Transport, and will be based upon the following requirements of mental and physical fitness:—

- (a) General considerations. Good family and personal history, with particular reference to nervous stability. Absence of any mental, moral or physical defect which will interfere with flying efficiency.
- (b) General surgical examination. The candidate must neither suffer from any wound, injury or operation nor possess any abnormality, congenital or otherwise, which will interfere with the efficient and safe handling of aircraft.
- (c) General medical examination. The candidate must not suffer from any disease or disability which renders him liable suddenly to become incompetent in the management of aircraft. He must possess heart, lungs, kidneys and nervous system capable of withstanding the effects of altitude and also the effects of prolonged flight.
- (d) Eye examination. The candidate must possess a degree of visual acuity equal to 80 per cent for both eyes with correction by glasses if necessary. Ocular poise, the field of vision of each eye and colour perception must be normal.
- (e) Ear examination. The middle ear must be healthy. The candidate must possess an auditory acuity not less than that corresponding with the perception of the whispered voice at one metre. The vestibular mechanism must be intact and not hypersensitive. It must be equal on both sides.
- (f) Nose, throat and mouth examination. The candidate must possess free tubal air entry on both sides.
- (g) Minimum age. Candidates for private air pilot's certificates will not be granted a certificate before the age of seventeen.



CANADA

AIR REGULATIONS

APPLICATION FOR LIMITED COMMERCIAL AIR PILOT'S CERTIFICATE

(To be submitted in duplicate)

See conditions printed on back of this form

Name in full.....
(In Block Capitals, Surname Preceding)

Permanent Address.....

.....
(Any change in address to be notified immediately)

Nationality.....

(If naturalized give full particulars)

Date of birth..... Place of birth.....

Controller of Civil Aviation,

Department of Transport,
Ottawa, Ontario.

1. I hereby apply for a Limited Commercial Air Pilot's Certificate for the following types of aircraft. The total of my experience has been as follows:

TYPE	Hours Flown			Area or Route	Year
	1st Pilot	2nd Pilot	Passenger		
.....
.....
.....
.....
.....
.....
Totals.....

(If space insufficient, give information on separate sheet)

2. I am ready upon notice to undergo the practical tests prescribed and to pass the prescribed technical and medical examinations. Arrangements have been made for carrying out the prescribed tests at.....

..... on a..... aircraft.

3. I enclose two unmounted photographs of myself (not larger than 3" x 2").

4. I am a member of (Flying Club or School).....

Signature of Applicant.....

Date of Application.....

CONDITIONS OF ISSUE OF LIMITED COMMERCIAL AIR PILOT'S CERTIFICATE

1. Limited commercial air pilots' certificates will not be granted to Persons under 19 years of age or over 45 years of age.

2. Limited commercial air pilots' certificates will be valid in Canada only.

3. Limited commercial air pilots' certificates will be issued subject to the following conditions:—

- (a) The certificate will extend only to the type or types of aircraft specified.
- (b) The holder shall not carry passengers for hire unless he has completed at least one hundred hours as first pilot.
- (c) The holder, if authorized to carry passengers for hire in any type of aircraft, shall only do so after he has flown an aircraft of that type for at least two hours within the last six months.
- (d) The holder may, for the purpose of having additional types of aircraft added, fly such aircraft solo for a total time not exceeding three hours.
- (e) The holder shall not give dual flying instruction unless specially authorized.
- (f) The certificate will be subject to the holder passing a satisfactory medical examination and being certified as fit to fly, at least every six months if of the male sex, and at least every four months if of the female sex. The holder shall also, before flying after any serious accident or illness, pass a like examination and obtain a like certificate. The examinations are to be made by a medical officer approved by the Minister of Transport, and the result thereof endorsed on the certificate.

4. Limited commercial air pilots' certificates will be valid for day flying only.

5. Certificates will be issued only after flying tests and technical and medical tests and examinations as set out below.

6. Certificates will be issued in respect of definite types and models of types of aircraft, on which the candidate can establish satisfactory proof of at least two hours solo flying.

7. Flying tests for limited commercial air pilots' certificates will be as follows:—

(i) TESTS FOR TAKING OFF AND ALIGHTING.

(a) A flight, to the satisfaction of the examining officer during which the pilot shall attain a minimum altitude of 5,000 feet above point of departure and finish with a glide, the engine being shut off at that height, the alighting made without restarting the engine, and the aircraft brought to rest within 300 feet of a point fixed beforehand by the examining officer of the test.

(b) Four similar flights in each of which the pilot shall take off and climb steadily until signalled by the examining officer, whereupon he shall immediately close the throttle and without again opening the throttle shall alight, bringing the aircraft to rest within one hundred and fifty feet of a mark selected before taking off.

(ii) TEST OF SKILL.

On one of the four flights last mentioned, the pilot shall fly at an altitude of not less than 1,500 feet above the ground or water around two marks situated at least 550 yards apart, making, to the satisfaction of the examining officer, a series of five figure-of-eight turns, each turn reaching one of the marks.

(iii) TEST OF ENDURANCE.

A cross country or oversea flight of at least 200 miles, beginning and ending at the same point. The candidate shall be informed of his course. The examiner will decide whether the flight has been satisfactorily made.

(iv) EXPERIENCE.

The applicant must submit proof of at least fifty hours in the air as pilot in sole charge of an aircraft.

(v) SPINS.

The candidate shall satisfy the examining officer as to his ability to recover from both left and right hand spins.

8. All flights in the case of a test for a certificate for types of aircraft of less than 2,000 pounds gross weight shall be carried out with the pilot alone in the aircraft. Tests for certificates for other types shall be carried out in an aircraft of the type with the necessary crew, if any.

9. A candidate who desires a licence permitting him to fly a type of aircraft equipped with two or more engines will be required to undergo a practical test of his ability to fly and manoeuvre such an aircraft with each engine in turn completely throttled down.

10. If available, a barograph shall be carried on all flights, and the graph, signed by the examiner, shall be attached to his report, which will cover all incidents, especially the alightings.

11. The technical examination will be upon the subjects and will include the practical tests indicated:—

(a) Theoretical knowledge of the resistance of the air as concerns its effects on wings and tail planes, rudders, elevators, and propellers; functions of the different parts of the aircraft and of their controls.

(b) Assembling of aircraft and their different parts.

(c) Practical tests on rigging.

(d) General knowledge of internal combustion engines, including functions of the various parts, a general knowledge of the construction, assembling, adjustment and characteristic of aero-engines.

(e) Causes of the faulty running of engines and of breakdown.

(f) Practical tests in running repairs.

(g) Knowledge of rules as to lights and signals, rules of the air, and rules for air traffic on and in the vicinity of aerodromes and seaplane stations.

(h) Practical knowledge of the special conditions of air traffic and of international air legislation.

(i) Map reading, orientation, location of position, dead reckoning, elementary meteorology.

(j) Practical test on compass swinging.

12. A medical examination will be made by a medical officer approved by the Minister of Transport, and in accordance with the medical requirements of the International Commission for Air Navigation.



CANADA

AIR REGULATIONS

APPLICATION FOR PUBLIC TRANSPORT PILOT'S CERTIFICATE
(To be submitted in duplicate)

See conditions printed on back of this form

Name in full.....

(In Block Capitals, Surname Preceding)

Permanent Address.....

Nationality.....

(If naturalized give full particulars)

Date of birth..... Place of birth.....

Controller of Civil Aviation,

Department of Transport,
Ottawa, Ontario.

1. I hereby apply for a PUBLIC TRANSPORT pilot's certificate for the following types of aircraft. The total of my experience has been as follows:—

Type and model	Hours flown				Area or route	Year
	1st pilot	2nd pilot	Instrument	Night		
.....
.....
.....
.....
.....
Totals.....						

(If space insufficient give information on separate sheets.)

This application must be supported with proof of the experience above stated.

- I am ready to attempt the practical tests and the technical and theoretical examinations as prescribed, at.....
on a..... aircraft.
- I enclose three unmounted photographs of myself (passport size).
- Employed by.....

Signature of Applicant.....

Date of Application.....

CONDITIONS OF ISSUE OF PUBLIC TRANSPORT PILOT'S CERTIFICATE

1. Public Transport pilots' certificates will not be granted to persons under 23 years of age or over 45 years of age.
2. Certificates will be issued only after flying tests and practical and technical and medical tests and examinations as set out below.
3. Public Transport pilots' certificates will be issued in respect of definite types and models of types of aircraft on which the candidate can establish satisfactory proof of at least two hours' solo flying.
4. A certificate issued in respect of one or more specified types of aircraft is limited to aircraft of the specified type or types, but may be amended to include additional types, subject to the following conditions:—
 - (a) That the holder may not take charge of any aircraft of any given type until after he has flown an aircraft of that type for two hours, either under instruction or alone in the aircraft.
 - (b) That the holder may not take charge of any aircraft unless after he has flown an aircraft within six months for at least one hour, either alone or under instruction.

(Note.—The expression "take charge of" is interpreted to mean that a pilot may not fly any aircraft for hire or reward, or with passengers, other than with any necessary crew.)
5. Certificates are subject to the holder if of the male sex passing a satisfactory medical examination at least every six months and if of the female sex at least every four months and after any serious accident or illness, and may be cancelled at any time for cause.
6. The holder of a Public Transport pilot's certificate will not be permitted to give dual flying instruction unless specially authorized.
7. The applicant must submit proof of at least 500 hours in the air as pilot in sole charge of an aircraft.
8. Flying tests, to the satisfaction of the examining officer, for Public Transport pilots' certificates will be as follows:—

(i) *Tests for Taking Off and Alighting.*

(a) A flight, during which the pilot shall attain a minimum altitude of 5,000 feet above the point of departure and finish with a glide, the throttle being fully closed at that height, the alighting made without again opening the throttle, and the aircraft brought to rest within 300 feet of a point fixed beforehand by the examining officer of the test.

(b) Four flights in each of which the pilot shall take off and climb steadily until signalled by the examining officer, whereupon he shall immediately close the throttle and without again opening the throttle shall alight, bringing the aircraft to rest within 150 feet of a mark selected before taking off.

(ii) *Test of Skill.*

A flight, during which the pilot shall fly at an altitude of not less than 1,500 feet above the ground or water around two marks situated at least 550 yards apart, making a series of five figure-of-eight turns, each turn reaching one of the marks.

(iii) *Test of Endurance.*

(a) A cross-country or oversea flight of at least 200 miles, beginning and ending at the same point. The candidate shall be informed of his course.

(b) A flight without landing during which the candidate shall remain for a total period of one hour at a minimum altitude of 12,000 feet above sea level.

(iv) *Night Flight.*

Three flights of at least fifteen minutes each made between two hours after sunset and two hours before sunrise, at a height of at least 1,500 feet above the ground or water, on a dark night.

(v) *Spins.*

The candidate shall satisfy the examining officer as to his ability to recover from both left and right hand spins without exterior view.

(vi) *Instrument Flight.*

A flight in the course of which the candidate must, without exterior view, maintain correctly, during thirty minutes, his line of flight and carry out ordinary manoeuvres by the sole use of the instruments on board.

NOTE.—The flying tests designated in the foregoing para. 8 (i) (ii) and (iii) (a) may be waived to the holders of valid commercial or limited commercial air pilots' certificates.

9. All flights in the case of a test for a certificate for types of aircraft of less than 2,000 pounds gross weight shall be carried out with the pilot alone in the aircraft with the exception of the test stated in para. 8 (vi). Tests for certificates for other types shall be carried out in an aircraft of the type with the necessary crew, if any.
10. A candidate who desires a licence permitting him to fly a type of aircraft equipped with two or more engines will be required to undergo a practical test of his ability to fly and manoeuvre such an aircraft with each engine in turn completely throttled down.
11. If available, a barograph shall be carried on all flights and the graph, signed by the examiners, shall be attached to their report which will cover all incidents, especially the alightings.
12. The technical examination will be upon the subjects and will include the practical tests indicated:—
 - (a) Theoretical knowledge of the laws of the resistance of the air especially as concerns its effect on wings and tail planes, rudders, elevators, and propellers; functions of the different parts of the aircraft and of their controls.
 - (b) Assembling of aircraft and their component parts.
 - (c) Practical tests on rigging.
 - (d) General knowledge of internal combustion engines, including functions of the various parts, a general knowledge of the construction, assembling, adjustment, and characteristics of aero engines, and their lubrication and upkeep.
 - (e) Causes of the faulty running of engines and of breakdown.
 - (f) Practical tests in running repairs.
 - (g) Practical swinging of an aircraft compass.
 - (h) Knowledge of instruments prescribed for aircraft.
 - (i) Knowledge of rules as to lights and signals, general rules for air traffic and special rules for air traffic on and in the vicinity of aerodromes and seaplane stations.
 - (j) Practical knowledge of the special conditions of air traffic and of international air legislation.
 - (k) Map reading, orientation, measurement of distances, calculation of courses, location of position, elementary meteorology.
13. A medical examination will be made by a medical officer approved by the Minister of Transport, and in accordance with the medical requirements of the International Commission for Air Navigation.



**CANADA
AIR REGULATIONS**

APPLICATION FOR AIR ENGINEER'S CERTIFICATE

(TO BE SUBMITTED IN DUPLICATE)

Name of applicant in full.....

(In Block Capitals, Surname Preceding)

Permanent address.....

Nationality..... Place of birth..... Date of birth.....

CONTROLLER OF CIVIL AVIATION,

DEPARTMENT OF TRANSPORT,

OTTAWA, ONT.

Application is hereby made for an Air Engineer's Certificate for the purposes and types of aircraft, aero engines and instruments specified:—

- (a) Inspection of aircraft before flight.....
- (b) Inspection of aircraft after overhaul.....
- (c) Inspection of aero engines before flight.....
- (d) Inspection of aero engines after overhaul.....

I have had the following aviation experience:—

Employer	Date		Nature of duties
	From	To	
.....
.....
.....
.....

I attach at least three certificates of competency containing proof of experience as required in Condition 4 overleaf, from:—

Name	Office or function
.....
.....
.....
.....

I hereby declare that the above particulars are true in every respect.

I am prepared upon notice to attend at the aerodrome at..... and submit to such examinations and tests as may be set by the examining officer.

I enclose two unmounted photographs of myself (not larger than 2" x 3", the head to be at least $\frac{1}{2}$ ").

Signature of Applicant.....

Date of application.....

CONDITIONS OF ISSUE OF AIR ENGINEER'S CERTIFICATE

1. No person who is not a British subject or a subject of a foreign country which grants reciprocal aeronautical privileges to Canadians on equal terms and conditions with subjects of such foreign country, shall be issued with a certificate authorizing him to act as engineer of commercial or state aircraft.

2. Air Engineers' Certificates will be issued subject to the provisions of Air Regulations, for any or all of the following purposes, viz.:—

- (a) Inspection of aircraft before flight.
- (b) Inspection of aircraft after overhaul.
- (c) Inspection of aero engines before flight.
- (d) Inspection of aero engines after overhaul.

3. A certificate issued to any engineer may be suspended or cancelled at any time by the Minister of Transport, for cause, including the failure to comply beyond Canada with the provisions of Air Regulations, Canada.

4. The applicant must furnish satisfactory proof of at least two years' experience in the manufacture or maintenance of aircraft and/or aero engines.

5. Application must be supported by three letters of competency from employers or licensed air engineers showing the proficiency of the applicant in practical aviation.

6. Practical tests and examinations as required for class desired (using type of aircraft with which applicant is familiar).

The practical tests shall include:—

- (a) Adjustment of rigging for flight.
- (b) Repairs to fabric, wood and metal parts.
- (c) Running repairs of aero engines.

The written or oral examination will be on the following subjects:—

- (a) Assembly and rigging of aircraft.
- (b) Construction and operation of aero engines.
- (c) Carburetors, magnetos, and other accessories.
- (d) Causes of faulty running of engines and correction.
- (e) Lubricating oils used in aero engines.
- (f) Equipment necessary in aircraft operating in Canada.
- (g) Capacity, disposition of useful load in aircraft.
- (h) Air Regulations.
- (i) Aircraft Instruments.

7. Under authority of Air Regulations, it has been decided to limit the validity of Air Engineers' Certificates to three years. Certificates may, however, be extended for further periods not exceeding three years, upon proof that the applicant has been actually employed as an Air Engineer and is at that time familiar with the work of an Air Engineer.

APPLICATION FOR A LICENCE FOR AN AIRPORT

ISSUED UNDER AUTHORITY AIR REGULATIONS, 1938

(To be sent in duplicate)

APPLICANT'S NAME.....

ADDRESS.....

Controller of Civil Aviation,
Ottawa, Ontario.

1. Application is hereby made for a licence for an airport of which the proper description is as follows:—(Conveyancing description to be given of land area and of water area. If space is insufficient, give information on separate sheet.)

2. A map of large scale is attached and marked thereon is the exact

position of the area for which a licence is requested.

The Latitude of the site is ° ' " North.
The Longitude of the site is ° ' " West.

3. There is enclosed herewith a plan on a scale of at least 20" to the mile showing the proposed airport and the surrounding ground or water to a distance of 550 yards in all directions. The plans show the land contours of the proposed airport at vertical intervals of 2 feet and of the surrounding ground area at intervals of 20 feet. It also accurately shows all natural features, buildings, trees, or works on the proposed airport, and those on the surrounding ground upwards of 10 feet in height, the heights being as noted upon the plan. The proposed effective landing area for the alighting and taking off of machines is also shown and any dangerous objects in the vicinity are specially marked.

4. The applicant's title to use the land area or water is:—

A copy of the deed or permission to use the property certified before a J.P. or Notary Public is attached hereto.

5. An oblique photograph 7" x 9" taken from an aircraft at 500', which includes the airport property and surrounding area, as stated in paragraph 2, is attached. (In lieu of this, two photographs of the airport property are attached, taken in opposite directions from a high point of observation at the site.

6. There is enclosed a remittance of \$10 in favour of the Receiver General in payment of the fee for this licence.

7. The airport is to be available for use only by day
 by day and by night

8. The airport is to be available for use by the public
 private use only, by aircraft belonging to the following owners:—

9. The airport is to be available for use by the following types of aircraft only:—

LANDPLANES

SEAPLANES

SKIPLANES

10. The following equipment is or is to be installed at the airport:—

11. Application is made for authority to make the following charges:—

Alighting and taking off	Light Machines	Medium Machines	Heavy Machines
(a) by day.....
(b) by night.....
Open air storage:—			
(a) Above 2 hours up to 8 hours.....
(b) Above 8 hours for each 24 hours including the first 8 hours.....
(c) per month.....
Hangar storage:—			
(a) Unheated, per day.....
(b) Unheated, per month.....
(c) Heated (Winter months) per day.....
(d) Heated (Winter months) per month.....

The alighting charge to include the starting of propellers, one test flight and the supply of all available information as to routes and weather conditions, but services and repairs to be separately charged for. Where storage charges are made, no additional charge is to be made for landing.

12. The particulars above given are true.

Dated at.....this.....day of.....19.....

(Signature).....

DETAILED INFORMATION ON SITE

1. SITE (Name).....
2. AIRPORT (City)..... 3. PROVINCE.....
4. COUNTY..... 5. LOCATION (Distance from Post Office)...
6. ALTITUDE.....
7. MAXIMUM DIMENSIONS OF AIRPORT PROPERTY.....
8. DIMENSIONS OF CLEAR FLYING AREA.....
9. DOES SITE ALLOW FOR EXPANSION OF LANDING AREA AND AERODROME
.....
10. NATURE OF SURROUNDING COUNTRY.....
11. SURFACE CONDITIONS.....
12. DEPTH OF WATER, TYPE OF BOTTOM, SAND, GRAVEL, MUD, ETC. (If applicable).....
13. OBSTRUCTIONS:—
 - North.....
 - North East.....
 - East.....
 - South East.....
 - South.....
 - South West.....
 - West.....
 - North West.....
 - Midfield.....
14. WATER.....
15. ELECTRICITY.....
16. TELEPHONE.....
17. TELEGRAPH.....
18. RADIO.....
19. LOCAL LAND MARKS:—
 - (Day).....
 - (Night).....
20. SURFACE TRANSPORTATION:—
 - (Nearest Railway Station or Shipping point).....
21. ADVANTAGES.....
22. DISADVANTAGES.....
23. METEOROLOGICAL DATA:—
 - (a) Prevailing Wind..... Summer..... Winter.....
 - (b) Frequency of Fog..... Summer..... Winter.....
 - (c) Other data.....

DESIRABLE CHARACTERISTICS OF AIRPORTS

1. *Location*.—An airport to serve a given urban area should be within the shortest possible distance from the centre of the area to be served having regard to zoning requirements and the means of communication with that centre and should be the best the circumstances permit. The advantage of a rapid journey by air is minimized if time is wasted going to or from the airport. Urban centres situated near navigable water should, where possible, be served by a combined airport, thus reducing the expense for both equipment and maintenance.

2. *Exposure*.—An airport should not be so located that it is exposed to abnormally irregular or violent winds or squalls or to seas or heavy swell.

3. *Size of Airports (Land)*.—At a public airport the circular area available for the taking off and alighting of flying machines should be not less than 1,800' in diameter at sea level and a length of at least 3,000' should be provided if possible with provision for extension to 5,000' in the case of large municipal airports. There should be no obstacles in the vicinity which require to be marked as dangerous, and ordinarily no licence will be granted for any public airport which has in its vicinity more than two of such obstacles. Fences, trees, telephone or transmission poles and lines, towers or tall chimneys, high buildings, etc., are obstructions and hazards to safe flying operations. Their effect is to reduce by twenty feet the effective landing area for every foot of height of the obstruction, the ratio 20 to 1 is calculated at sea level: for example, a telephone line with poles and wires 50 feet high discounts the usefulness of the effective landing area by 1,000 feet. The principal runways prepared for night flying must have a flight-way approach with a width of 1,000 feet clear of obstacles in a ratio of 50 to 1 from the perimeter of the airport.

4. *Size of Airports (Water)*.—There should be at least a 2 mile square of water suitable for alighting and taking off, and not flanked on any side by high buildings, trees or cliffs. The depth of water throughout should be not less than six feet.

5. *Condition of Surface of Airports (Land)*.—The ground surface should be smooth both within the circular area and in any area lying between it and the hangars or

any other point to or from which flying machines may require to taxi or on which they might alight. The surface should also, within narrow limits, be level. The ideal airport would have a gradient of about one-half per cent from the circumference of the circle inwards up to the centre in every direction, but such a condition can rarely be obtained. No gradient should, however, exceed two per cent. Changes in grade should be infrequent, and transitions from gradient to gradient should in all cases be very easy. In localities where, due to topographical conditions, it is not possible to obtain a site of 3,000 feet diameter, "L" "T" or "X" shaped runways of at least 3,000 feet in length at sea level and 500 feet in width, free from obstructions, may be constructed. "X" shaped runways should intersect at an angle of not less than 45°. The length of runways should be increased according to the altitude at which the airport is located, approximately 5 per cent for each 1,000' altitude above sea level.

6. *Quality of Surface of Airports.*—The quality of the surface should be such that it is sufficiently firm to support the weight of an aircraft on its landing wheels without undue displacement in any weather and in any season except winter, when skis would be used. At the same time it should not be such as to pulverize easily, since windborne dust is likely to injure engines. Hard grazing land is consequently to be preferred and a sub-soil of a porous character, the whole drying readily after rain, or one that will allow of adequate drainage. Where the sub-soil does not admit of the adequate drainage of the surface in wet weather, runways should be constructed at least 1,800' in length, and 500' in width. A hard surfaced landing and taking off strip minimum of 100' and preferably 200' in width should be laid along the centre of each runway and the 200' on each side of it tile drained.

7. *Hangars, Etc.*—There should be hangar accommodation for the traffic immediately in prospect and ample space for the extension of this accommodation. On water there should be a landing stage so constructed as to permit of the ready handling of planes at any stage of water. Repair shops, etc., should be located according to circumstances. The main store of fuel should be at such points as will permit of supplies being readily unloaded into it, and pipes should lead to small reservoirs from which the fuel can be conveniently delivered direct to the aircraft, or refuelling

from mobile units arranged. Municipalities may find it advantageous to confine themselves to the purchase and preparation of the ground and to grant concessions to private firms for the storage, refuelling and repair of aircraft.

1. Equipment.—Every public airport should have telephone connection with the urban centre which it serves. It should also, if possible, have connection with a water and sewerage system and be supplied with electric power or gas, or both. Adequate first-aid medical equipment should also be provided.



CANADA

AIR REGULATIONS, 1938

Application for Airport Traffic Control Officer's Certificate.

(To be submitted in duplicate, with two unmounted photographs not larger than $2\frac{1}{2}$ inches by 2 inches).

Controller of Civil Aviation,

Department of Transport,
Ottawa, Ont.

Application is hereby made for an Airport Traffic Control Officer's Certificates.

Name. (In Block Capitals, Surname Preceding)

Permanent address.

Nationality.

Place and date of Birth.

Details of experience in aviation and certificates held.

Pilot.

Aircraft owner or operator.

Airport operator or manager.

Radio operator.

General.

Signature of Applicant.

Date of Application.

CONDITIONS OF ISSUE OF AIRPORT TRAFFIC CONTROL OFFICER'S CERTIFICATE

1. The minimum age for applicants for this certificate shall be 25 years.
2. The applicant shall be able to read, write, and understand the English language, shall be able to speak the English language without accent or impediment of speech which would interfere with intelligible two-way radio conversation, and shall be a high school graduate or its equivalent.
3. The applicant shall possess an appropriate valid radio licence issued by the Department of Transport.
4. The applicant must hold or have held a certificate as a private, commercial or transport pilot, or have other extensive air experience.
5. The applicant must have had at least three years' experience in aviation.
6. Certificates will only be issued after satisfactory examinations and tests on the following subjects:—
 - (a) Air Regulations.
 - (b) Airline Operation Schedules and Procedure.
 - (c) Aircraft Equipment and Performance.
 - (e) Radio Frequencies and Procedure.
 - (f) Aviation Meteorology and Weather Sequences
 - (g) Signalling by Radio, Lamp, Teletype, Etc.
 - (h) Elementary Navigation including Map Reading, Orientation, Measurement of Distances, Calculation of Courses and Location of Position.
7. Certificates to Airport Traffic Control Officers will only be issued after a satisfactory medical examination by a medical examiner authorized by the Department of Transport which places the applicant in category "A.2" or better.
8. Certificates remain valid only if the holder passes a satisfactory medical re-examination at least every twelve months and after any serious accident or illness, and may be cancelled at any time for cause.

